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# JOURNAL *of* FARM ECONOMICS

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# JOURNAL OF FARM ECONOMICS

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## BASES FOR CONTROLLING AGRICULTURAL PRICES<sup>1</sup>

GEOFFREY SHEPHERD

*Iowa State College*

AGRICULTURAL price policy in the United States on the action agency level has evolved swiftly since 1929. During the 1930's, the two major price problems were both attacked (1) stabilizing supplies and prices—the problem of removing undesired fluctuations in market supplies and prices, resulting from erratic fluctuations in yields, and (2) changing production in line with changes in demand. The first problem, stabilizing supplies and prices, was first attacked by the Federal Farm Board, unsuccessfully (largely because of the onset of the great depression in 1929) and later more successfully by the Commodity Credit Corporation; the second more difficult problem of changing production (in the first instance, reducing it) was attacked by the Agricultural Adjustment Administration. During 1941, under the impact of war, the Agricultural Adjustment Administration control of production was reversed in direction. It was changed from reduction to expansion, implemented by means of physical production goals and guaranteed price floors announced ahead of time to support prices and encourage expansion. In 1942, the emphasis with respect to prices was reversed; price ceilings were established, at various heights above the price floors, to hold prices down.

The several elements in the price policy thus developing have pretty well boxed the economic compass, and the time is ripe for

<sup>1</sup> Journal Paper No. J-1057 of the Iowa Agricultural Experiment Station, Ames, Iowa. This paper is an outgrowth of the research work done under Project 722. The article is the second one of a pair. The first article, entitled The Stabilization Operations of the Commodity Credit Corporation appeared in the August issue of this JOURNAL. I am indebted to J. B. Hutson, F. V. Waugh, H. M. Southworth, O. V. Wells, and Sherman Johnson, of the USDA, for their comments, although they do not necessarily endorse my views. I am also indebted as usual to my colleagues at Ames.

appraisal and coordination. Where do we go from here, and how should we proceed?

The Commodity Credit Corporation has shown that it can handle the stabilization problem, if it is not asked to raise the level of prices as well as stabilize them. The price ceilings will disappear when the war is over and inflationary forces have spent themselves. But the third element, the guaranteed price floors, may play a more and more important role in the coordinated price policy that needs to be worked out now to carry through the war and to stand up under the stress of post-war readjustments. These price floors, although in some cases at present tied to 1909-14 price parity or certain percentages of parity, may be developed in the future to overcome some of the existing shortcomings of parity prices as goals.

#### *Shortcomings of 1909-14 Parity Price Goals*

Parity prices on a 1909-14 base were useful guides for agricultural policy during the depression that began in 1929, for the 1909-14 period was only 15 or 20 years in the past and the disruption of price relationships from 1929 on was so great that a concrete numerical bench-mark which was only moderately accurate was still useful as a general guide.

But after the worst of the depression was past, the inaccuracy of 1909-14 parity prices as goals increased year by year as the 1909-14 base receded farther and farther into history. Furthermore, as demand recovered and prices approached closer to parity, the inaccuracies showed up more clearly than during the earlier period when parity was a more distant and general goal. Many agricultural leaders recognized these shortcomings of 1909-14 parity quite clearly. The costs of producing different products had obviously changed, and at different rates, since 1909-14. The demands for different products had also changed at different rates, with the disappearance or severe restriction of many export markets and the development of new tastes and nutritional standards. Yet for several years no concrete proposal for a better concept or objective was offered to replace parity.

The nearest to a constructive step in this direction was the suggestion that a more recent base be used. Several other bases were proposed. Perhaps the most valid among them were 1926, the base adopted by the Bureau of Labor Statistics for its price indexes,

and 1935-39, recommended by a number of economists. But there were enough objections to these bases that none of them were acceptable to farmers. None of them provided such a high parity as 1909-14, and even if that hurdle could have been surmounted, some producers were always able to point out that such-and-such a base resulted in lower prices for their particular product and was therefore unfair.

This was unfortunate, for the chief weakness of 1909-14 parity lies not so much in the "parity" as in the "1909-14." Much can be said for parity with a recent base to be used in time of severe depression. When depression strikes with devastating force, it is surely sensible for the Federal Government to cushion its effects upon labor, as it does with Unemployment Compensation, Works Progress Administration, etc., and upon agriculture, by a program which both retards the fall of prices at the farm, and at the same time provides food for the unemployed, by means of loans, purchases and distribution of farm products. Parity with prices on a recent base—perhaps a moving average of the five years immediately preceding the current year—would serve as a useful guide for price floors of this sort. It would be an objective to be approached as closely as the severity of the depression required. It would be a necessary burden assumed in depression and gradually thrown off as the worst of the depression was passed. A good deal can be said for this application of parity. But parity with conditions thirty years ago, in good times as well as in depressions—something that a group had once and thereafter is entitled to forever—seems to be a misapplication of a good idea that may eventually backfire disastrously on any application, good or otherwise.

#### *A Different Objective for Agricultural Price Policy*

Guaranteed forward price floors, announced before planting or breeding time so as to influence production, were originally put into effect in the United States in World War I. During that war, the USDA announced guaranteed prices for wheat and hogs a year or more in advance in order to encourage increased production of those two commodities.<sup>2</sup> The price floors were abandoned immedi-

<sup>2</sup> The story has been briefly summarized thus: "The food act of August, 1917, provided a minimum price of \$2 a bushel for the next year's wheat crop which would begin moving to market about June 1918, the purpose being to encourage fall and spring plantings of wheat by offering a price guarantee. On September 2, 1918, the President extended the guaranteed wheat price (\$2.20 by that time) to

ately after the war, when the problem was to reduce production, not expand it.

The idea of forward price floors reappeared, however, about 10 years later. In 1927, a report of a "Business Men's Commission on Agriculture" was set up by the National Industrial Conference Board and the Chamber of Commerce of the United States. This commission drew up a remarkably forward-looking report.<sup>3</sup> This report recommended that a Federal Farm Board be established, and that with the advice and assistance of this Board, "effort should be made to organize stabilization corporations to engage in the buying and selling of farm products for the purpose of stabilizing prices." "Cotton, wheat, and perhaps corn appear to be the only commodities in which stabilization corporations of this sort could successfully operate, at least at the outset of the experiment. As these corporations became strong enough and gained sufficient experience, it might be possible for them to carry price stabilization one step beyond the mere handling of emergency surpluses due to weather conditions and to attempt the gradual control of production, so far as this can be accomplished by influencing planting intentions and programs. To this end it might eventually be possible for these corporations to announce in advance of the planting of crops a price at which they would stand ready on a specified date after the production of the crops in question to purchase any surplus which might then be offered, this price being such as would induce the desired proportion and volume of the crops concerned."<sup>4</sup>

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the 1919 crops. . . . This guarantee of prices was accompanied by an increase in wheat acreage in the United States from 47,000,000 in 1917 to 61,000,000 in 1918 and the all-time high of 73,700,000 acres in 1919.

"Government purchases of hog products for the Army and Navy, the Allies and the relief agencies were directed toward the announced purpose of keeping prices of hogs, in Chicago, from falling below \$15.50 a hundred. In an effort to increase hog production in 1918, the Food Administration set out to try to stabilize prices at an equivalent of 100 pounds of hogs for 13 bushels of corn. To carry out its price policy for hogs, the Government not only made purchases, but controlled receipts at primary markets through a system of embargoes and car allotments, licenses to dealers and packers, and to some extent, regulation of the profits of packers. . . . The Food Administration found it difficult to maintain hog prices equivalent to 13 bushels of corn at Chicago. It therefore lowered the ratio from 13 to 11, but basing it on average prices for corn at local farmers' markets rather than on Chicago prices. Indignant farmers charged the United States and British Food Administrations with a lack of good faith." (Arthur G. Peterson, "Price Administration, Priorities, and Conservation of Supplies Affecting Agriculture in the United States, in, 1917-18," *Agricultural History Series No. 3*, Nov., 1941, pp. 13, 16).

<sup>3</sup> Business Men's Commission on Agriculture, *The Condition of Agriculture in the United States and Measures for its Improvement*. 1927.

<sup>4</sup> Op. cit. p. 33.

These suggestions were embodied to a remarkable degree in the Agricultural Marketing Act of 1929. This act set up the Federal Farm Board, and the board created stabilization corporations, whose unfortunate experience is well known. The board was abolished in 1933, and while the idea of stabilizing supplies and prices was adopted and expanded by its successor, the Commodity Credit Corporation, the principle of announcing prices in advance of the planting of crops in order to induce the desired production of those crops was abandoned.

The forward price proposal was revived again after the lapse of another 10 years. In one paragraph of a paper given at the meetings of the American Economic Association in December, 1940, T. W. Schultz, speaking of the loans made by the Commodity Credit Corporation, recommended:

- (1) that loan rates be based, not upon percentages of parity, but upon "production, marketing and consumption criteria" and
- (2) that these loan rates be announced "well in advance of the time that farmers start making plans for the production of the new crop."<sup>5</sup>

In a footnote Schultz suggested that "this technique is applicable to livestock plans and production," as well as to field crops. He did not elaborate upon his forward price proposal. In fact, he left it out entirely when he read his paper.

J. D. Black followed Schultz on the platform, and devoted more than half his remarks to disapproving this one paragraph in Schultz's paper. To Black, the proposal was merely "out-and-out price fixing," and he predicted that it could have no better future than the unhappy outcome of previous price-fixing schemes. He expected that producers would insist upon loan rates being set too high, and that those high loan rates would cause over-production. He proposed a somewhat different approach:

The writer would begin his program at the consumption end, deciding first what changes in domestic consumption and in export disposal to try for, and what procedures to use to achieve these. He would then set production quotas large enough to supply these amounts and build up and maintain an ample reserve. He would then try to expand the consumption of the right foods sufficiently so as to raise the prices to producers of them to an equilibrium level higher than the present one. If any subsidies were to be used, he would apply them at the consuming end. In

<sup>5</sup> T. W. Schultz, *Economic Effects of Agricultural Programs*, *American Economic Review*, Vol. XXX, No. 3, Feb. 1941, p. 127-154.

such a procedure, allocation of income and resources, in the sense in which Dr. Schultz uses these terms, would be largely harmonized.<sup>6</sup>

A little later, Schultz repeated his suggestion, referring to it this time as a "gigantic futures market, a market which will push ahead a list of prices, to guide and direct production of farmers."<sup>7</sup>

More recently, Black appears to have receded somewhat from his opposition to Schultz's ideas. As a matter of fact, Schultz's and Black's ideas were basically more complementary than antagonistic. In any case, they would probably have remained purely academic like many other good ideas that are sound in principle but difficult to put into practice. But the exigencies of approaching war, and finally war itself, soon forced the Department of Agriculture to adopt these ideas in spite of the difficulty of putting them into effect. A great expansion in the production of certain commodities was needed to meet lend-lease and domestic needs. In order to bring about this expansion the Department announced in April, 1941 what amounted to forward price floors to be implemented by purchases in the open market. The prices for hogs were \$9 per 100 pounds at Chicago; for dairy products on the basis of butter, 31 cents per pound; for chickens, 15 cents per pound; and for eggs, 22 cents per dozen. These prices were based upon the needs of the existing situation, not upon parity with 1909-14.

Then Congress took hold. On May 26, in Public Law 74, it directed the Commodity Credit Corporation to make loans on basic crops at 85 per cent of parity. This was a follow-up of an old and long-continued fight. Then in July, in Public Law 147, commonly referred to as the Steagall amendment, Congress broke new ground. It tied the price floor plan, where necessary to expand the production of non-basic crops, to 85 per cent of parity or comparable prices. This was a new approach, both in terms of the commodities to which it applied and in terms of the action it called for. Thus forward price floors, extending into the future at least as long as

<sup>6</sup> John D. Black, Measures for the Improvement of Agriculture, *American Economic Review*, Vol. XXX, No. 5, Feb., 1941.

<sup>7</sup> T. W. Schultz, Time to Remodel Farm Programs! *Iowa Farm Economist*, April 1941. In the first half of 1942, D. Gale Johnson and Schultz collaborated in a series of 6 mimeographed memoranda, 5 of which were condensed and published in the *Iowa Farm Economist*, which also related to agricultural price policy. The titles of these articles, and the dates of the issues in which they appeared were: Keep Feed Costs Down! March; Wheat Will Make Meat! April; How to Get More Fats and Oils, May; Can We Increase Livestock Enough?, June; and More Hogs from the Plains! July. Johnson mapped out and started work on a Ph.D. thesis on the theoretical aspects of forward pricing before he took leave to work in the meats section of OPA in June, 1942.

"the existing emergency," were put into effect for the basic commodities, and made optional for other farm products if necessary to expand their production. The price floors in both cases were set at (or at not less than) 85 per cent of parity.

Within a few months, the need for price ceilings began to loom up. As legislation was drafted to deal with the situation, parity as a basis for price ceilings was found wanting. The Emergency Control Act of January, 1942 provided in Section 3 that no price ceiling for any agricultural commodity should be set at less than 110 per cent of parity, or any one of three prices (as of October 1, 1941, December 15, and the average for the period July 1, 1914, to June 30, 1929) whichever was the higher.

This made clear as a matter of public record, embodied in Federal legislation, that 1909-14 parity was an inadequate basis for agricultural price control; three other bases had to be used as well. Furthermore, even all four bases were not satisfactory. For instance, there was more than enough wheat in store in the United States and Canada for domestic and export requirements, and the production goals for 1942 called for no increase in wheat production. Yet 110 per cent of parity for wheat was \$1.40 a bushel, and this was 38 cents higher than the actual United States average farm price on December 15, 1941—enough to stimulate a considerable increase in production where none was required. On the other hand, an increase in beef slaughter of about 12 per cent was needed. Yet parity, or 110 per cent of parity, patched up with three other bases, resulted in relatively low minimum price ceilings for beef cattle. Thus the law could have resulted in low ceilings for beef cattle and high ceilings for wheat—just the reverse of what was needed.

Further modifications of 1909-14 parity had to be made in order to promote the war effort. Wheat and cotton were both being produced in excess of requirements, and corn prices at parity would have hindered livestock expansion. Clinging to parity would have hampered the war program. The situation clearly called for loans on those crops at lower rates than parity (the rates were 85 per cent of parity in 1941-42).

Thus 1909-14 parity was too high for wheat, cotton and corn (to say nothing of horses and mules, where it was 3 times as high as the going prices, so far out of line that nobody attempted to defend it) and too low for cattle and a number of other products.

The only way to make parity work with these major products was to depart from it.

#### *Summary*

The development of the price policy of the Department of Agriculture can be summarized from one point of view in a few sentences. It started out in 1933 with parity only as a general goal, and with the Secretary left legally free to determine loan rates on the basic crops as the situation required. In the Agricultural Adjustment Act of 1938 the range of this power was narrowed by the stipulation that the loan rates must fall between 52 and 75 per cent of parity. In 1941 this range was reduced to "not less than 85 per cent of parity"—which in the context of the times amounted to the single figure, 85 per cent.

Similarly, the price floors announced by the Secretary early in 1941 were set at the levels required by the current and prospective situation, but soon "not less than 85 per cent" of parity was written into the provisions concerning these prices too. And when price ceilings were applied, the limitation placed upon them by Congress was that they could not be placed below 110 per cent of parity or any one of three other bases, whichever of the four were highest.

Thus the Secretary was given very broad powers to control agricultural prices, but he was more and more narrowly circumscribed by law as to the level at which he could set them. And the limited ranges within which he could set price levels were mostly backward-looking, tied more or less closely to price relationships 30 years in the past and in many cases made workable only to the extent that the strings were loose enough to permit considerable departures from parity.

#### *Looking to the Future*

Are the existing emergency powers conferred on the Secretary of Agriculture purely emergency powers, to be revoked when the present war is over as they were after the previous war, or are they likely to be retained? And if they are retained, will the loan rates and prices continue to be tied to 1909-14 parity?

The development of the stabilization programs, removing undesired fluctuations in market supplies, has made the other half of the problem stand out more clearly—the job of inducing changes in production in time to meet changes in demand. The stabilization programs appear to have made a permanent place for themselves.

There are good grounds for believing that the forward price program will also be retained after the war is over. The present system of forward price floors, based on the loan rates of the Commodity Credit Corporation for storable products and the outright purchase prices of the Agricultural Marketing Administration for perishable products, seems well designed to handle this second problem.

The adoption of the forward price policy in 1941 was an expedient designed to meet two urgent practical needs in the situation existing at the time—the need to fix farm prices high enough to give some satisfaction to farm groups pressing for higher prices and the need for announcing those prices far enough in advance to directly and immediately encourage the desired amount of production of each major farm product. But the expedient could become a milestone representing a fundamental turning point in long-time agricultural price policy. The change from reducing production to increasing production is important enough. Still more significant is the change from using parity prices, with their backward-looking frame of reference, to forward prices, looking to the future. Forward prices not only involve a change in direction from looking backward to looking forward. They involve a more fundamental change—from using price controls simply as a crude device to raise prices, regardless of the supply and demand situation, to using price controls as a means for increasing and decreasing production and consumption.

But this change in policy has been only half carried through. The current program is certainly mixed. The Department is changing horses in the middle of the stream, but still keeping one foot in the first horse's stirrup. It is setting its forward prices by backward-looking parity bases more than 30 years out of date. During the present period of strong demand, the two horses have been moving along pretty well together, even though one of them is facing backwards; but *we ought to get that foot out of the first horse's stirrup* before the two horses begin to move far apart.

Whatever merits parity prices have as general goals for agricultural prices, their shortcomings as bases for forward price floors are obvious. What do agricultural economists have to offer instead?

#### *Proposed Bases for Loan Rates and Price Floors*

Here are my suggestions. The Commodity Credit Corporation has been following two different objectives—(1) stabilizing fluctua-

tions in supplies and prices about an average level, and (2) raising that average level toward parity or certain percentages of parity. It should drop the second objective and replace it with the objective of setting loan rates ahead of time each year at such a level as to call forth the production of each product required to meet the estimated demand. The Corporation would still be following two objectives. The first one would smooth out undesired fluctuations in yields, and the second would put in the desired changes in production.

The Agricultural Adjustment Administration has not been able to control production enough by acreage allotments and marketing quotas to support loan rates at the levels at which they have been set in the past, and there is real doubt whether it can do it in the future.<sup>8</sup> It may be able to do a short-time job in a sharp and severe depression, but not over a longer period of 5 or 10 years after prices have substantially recovered. The Federal Farm Board had to admit defeat in its stabilization operations because it set its loan rates too high, because it ran into a depression that was too big for its funds, and because it had no control of production. The Agricultural Adjustment Administration may have to admit that it cannot control production sufficiently to support loan rates (until the current abnormally strong wartime demand came along to rescue it) and that the program may have to be reversed. Instead of production control being used to set prices, price control may have to be used to set production.

The objectives of the Commodity Credit Corporation should be rewritten, so that they would read, not as at present "to protect and increase farm prices, to stabilize farm prices, and to assure adequate supplies of farm products," but "to stabilize market supplies of farm products (thereby taking out fluctuations in prices due to year-to-year fluctuations in supply) and to induce the changes in production needed to meet changes in demand." The objective would be, not to raise prices in spite of the demand and supply situation, as the Corporation has tried to do in the past, but to stabilize prices and raise or lower the level about which they are stabilized in order to bring about the production and consumption

<sup>8</sup> See my article on the Commodity Credit Corporation in the preceding issue of this JOURNAL, Schultz's New Orleans paper referred to above, and Schultz and O. H. Brownlee, Iowa Ag. Exp. Sta. Res. Bul. 298, Effects of Crop Acreage Control Features of Agricultural Adjustment Administration on Feed Production in 11 Midwest States, April 1942.

of each product required by national and international needs.

If their connection with parity were severed, the loan rates of the Commodity Credit Corporation and the purchase prices of the Agricultural Marketing Administration, announced ahead of planting and breeding time in order to give farmers plenty of time to lay their plans, would evoke the livestock breeding and planting of crop acreages that with average yields would provide the desired amount of production; the supply-stabilization operations would convert variable yields each year to the average yields desired, and the production required to meet the demand would be forthcoming when it was needed.

Forward price floors of this sort in one respect would be nothing more nor less than equilibrium prices (the prices that would call forth the amount of production demanded and move it all into consumption) announced far enough ahead of time to give farmers time enough to expand or decrease their production as required; but in another important respect, they are more than equilibrium prices. The term "equilibrium prices" connotes unregulated supply and demand prices, laissez-faire prices; but forward prices are more than this, as we shall see.<sup>9</sup>

#### *Objections*

The forward price proposal might be objected to because, it might be alleged, it amounts to doing nothing—nothing but anticipating what is going to happen anyway. It might be accused of inadequacy because it "does nothing for the farmer." The advocates of parity at least try to get farm prices raised. The forward price proposal might appear to envisage not even trying to do anything about prices except put them where they would be before long in any case.

I believe that this objection will not stand up under examination. With given conditions of supply and demand, a parity program that sets prices higher than equilibrium levels, by means of loan rates at parity or certain percentages of parity, only causes surpluses to pile up—surpluses that have to be sold eventually,

<sup>9</sup> John D. Black, in his book, "Parity, Parity, Parity," which came to my attention as this article was being completed, uses the term, "necessary prices." This term does not carry the laissez-faire connotation.

The title of Black's book is particularly apt. At another point in the original poem about "Proputty, Proputty, Proputty," that suggested "Parity, Parity, Parity," to Black, the old farmer goes on to point out that "proputty, proputty, sticks, and proputty, proputty grows."

depressing prices then. If these surpluses are merely the excess-over-average supplies in years of large crops, and are sold later in years of short crops, they will depress prices then only to average levels, and the objective of the ever-normal granary program—stabilization of market supplies and prices—will have been attained. But if the surpluses are larger than this, as they will be if prices are raised above average levels, then the most that can be accomplished by the pursuit of parity prices above equilibrium levels is to raise prices for a few years when surpluses are being accumulated, and depress them about equally far below equilibrium levels a few years later when the surpluses are being liquidated. Over the whole period of years of accumulation and liquidation, prices will average no higher under a pursuit-of-parity program than under an equilibrium price program.

The only thing that does raise prices under a parity price program is the reduction in production achieved by the Agricultural Adjustment Administration and the increase in demand resulting from the additional purchases of the Agricultural Marketing Administration through its various nutritional programs—the food stamp plan, the penny milk plan, the present huge lend-lease purchases, and so forth. These programs would be as fully in effect under a forward price program as under a parity price program.<sup>10</sup>

<sup>10</sup> Mordecai Ezekiel has some doubts about this. In a letter that arrived after my article was in galley proof, he says, "Historically I believe it is true of the last ten years that price-support measures have increased farm incomes though they resulted in the piling up at times of considerable surpluses. The argument you make that the addition to demand through the disposition of the surpluses can be taken into account in setting the price is rather unrealistic. In many cases in the past, and no doubt in the future, the fact is that first surpluses pile up as a result of prices higher than would have been provided under 'equilibrium conditions'; then the existence of the surpluses leads to steps to get rid of them. The diversion of loan wheat for feed is a case in point. To the extent that loan programs at price levels too high (by your criterion) result in increased efforts to dispose of the resulting surpluses, they do raise the actual level of prices and incomes."

There is a good deal of practical force in Ezekiel's comments, and my statement needs modification in the light of it. His point raises the question, however, whether that sort of program is what we want—a program by which war production and low-income group nutrition depends not so much on military requirements and nutritional needs as upon how surpluses of different products have piled up under the impact of the political pressure on each commodity, regardless of whether surpluses of those products are needed or not. The diversion of wheat to livestock feeding wastes a considerable portion of the resources which were used in wheat production. If 31¢ a bushel (the difference between 85 per cent of wheat parity and 85 per cent of corn parity) at all represents differences in real costs of production, the waste is not one that can be regarded with equanimity, except as a wartime measure. If, however, as some believe, wheat in the heart of the Wheat Belt can be grown as cheaply per bushel as corn in the heart of the Corn Belt, the waste consists of the unnecessary subsidy to wheat producers, plus the cost of shipping the wheat from the one area to the other.

They would be part of the conditions of demand and supply in the light of which the equilibrium prices would be set ahead of time. It is in this respect that the forward price program differs from the orthodox concept of equilibrium prices, which connote a do-nothing policy all along the line. Under a forward price program, the Agricultural Adjustment Administration and the Agricultural Marketing Administration would do as much to raise prices as they would under a parity price program; and they are the only agencies—or at least they are the agencies that do the only things—that can raise prices and make them stick over a period of years. Merely raising prices toward parity levels, in defiance of the conditions of supply and demand, cannot do the job.

#### *Length of Advance Notice Required*

The loan rates and purchase prices adopted under a forward price program would need to be set various lengths of time ahead for different products. And in the case of each product, long-time as well as short-time considerations are involved.

Poultry and eggs, for example, would require perhaps the least time of any of the major farm products. There is a high degree of flexibility in the industry in the short run, and the short run is shorter than with most other products. Hatchery operations now account for about 79 per cent of the total production of chicks.<sup>11</sup> The number of eggs set in hatcheries can be expanded or contracted greatly on short notice, and it takes only a few months for this to show up in market supplies of chickens and of the eggs from them. In the background, however, stand longer-time considerations. A very great expansion in production would require an increase in equipment, and this would take time, both for physical reasons and for the economic reason that producers would be reluctant to build more facilities if the increase in production would be short-lived.

In the case of hogs, some very short-time flexibility can be attained by feeding to lighter or heavier weights—a matter of only a few weeks. But from one to two years is required for changes in breeding operations to materialize as changes in market receipts.

<sup>11</sup> "Farmers purchased from hatcheries about 77 per cent of the chickens they raised this year compared with 73 per cent in 1940, and less than 50 per cent a decade ago." (The Poultry Situation, USDA, September 1941, p. 14). Recent revisions have raised the 1941 figure to 79 per cent. (Hatchery Production July, 1942, USDA, August 17, 1942).

For this purpose, price floors would need to be set about two years in advance.

The minimum length of time needed for changing the acreage planted to the various field crops is obviously the time required for planting preparations and length of the growing season. Long-time considerations are involved here, too, but there is no need to go into further detail at this point.

In the case of dairy products, there is a considerable amount of short-time flexibility. Lighter or heavier feeding affects the flow of milk very promptly. Furthermore, some of the herds in the Corn Belt are dual-purpose in character, and some of the milk can be diverted to or from the production of beef calves. But this would help only if the demand for dairy products and for beef were moving in opposite directions; usually they move together. Aside from this possibly spurious short-time flexibility, the dairy industry is basically a long-time industry, and production can be changed only slowly. The cows have to be milked out completely, a long gestation period is required for freshening, and expensive equipment is needed. Somewhat the same thing is true of the beef cattle industry. If large changes in production were required, the price floors for dairy products and for beef would have to be set several years in advance.

#### *Amount of Risk Involved*

These forward price programs would benefit consumers as well as farmers, for it is generally believed that farmers would produce more in response to a given guaranteed price than to prices that might range much above or below that price. The financial risks would be transferred from the individual farmers to the Federal Government. The risks would be reduced as well as transferred, for they would not be as great as when farmers carry them. The statistical knowledge and experience in the Department of Agriculture would enable the Department to make more accurate forecasts than individual farmers can.

Even so, the risks involved in these plans would still be heavy. If the forward price for hogs, for example, were set \$1.00 per 100 pounds too high, that would cost the government nearly 200 million dollars on that one product alone. Is there any way by which this sort of risk could be reduced?

One way to reduce the risk would be for the Federal Government to set its forward prices at some such figure as 10 per cent below

the estimated market prices.<sup>12</sup> If that still left too high a risk on the government, the risk could be reduced further by combining the forward price program with Sherman Johnson's recent proposal to pay different prices to producers for different units of their product—a basic price for the basic production allotment, and a higher price for quantities produced in excess of that allotment, a price sufficient to cover the extra costs of producing the extra quantity.<sup>13</sup> Johnson's scheme could be operated in reverse in times of reduced demand; the basic price would remain unchanged, but the price for quantities produced in excess of the basic allotment would be lower, not higher, than the basic price.

This combination of the forward price and a basic allotment two-price plan would reduce the cost to the government of the evoking the extra production desired, since the higher prices would be paid for only part of the total production, not for all of it as at present; it would also reduce the amount of the risk that the government shoulders when it puts a guaranteed floor under prices a year or more in the future. Instead of risking taking a loss on all of the product if the demand were to decrease unexpectedly, the government would take the loss only on the quantities produced in excess of the basic allotments.

The differential prices paid to producers could be articulated with the differential prices charged consumers. If the plan had been applied, in reverse, to wheat in 1942, wheat producers would have been paid the basic price for their "domestic allotment," but only feed wheat prices (85 per cent of corn parity, to be specific) for wheat produced in excess of their allotment. But the atmosphere in the summer of 1942 was too charged with tension over the 85 per cent of parity question for any legislation involving Johnson's ideas to have had a chance. Instead, wheat producers got 85 per cent of parity for all the wheat that they put under loan. Few wheat growers would claim that they needed \$1.14 per bushel at a time when production should be reduced, but that was what they got. The Commodity Credit Corporation thereupon had to get into the diversion business, taking over wheat at 85 per cent of wheat parity (\$1.14 per bushel) and selling part of it for feed at 85 per cent of corn parity (83 cents per bushel, 31 cents less than the price at which they took it over).<sup>14</sup>

<sup>12</sup> For a more detailed discussion of this subject, see the last few sections of my USDA Tech. Bul. 826, "Controlling Corn and Hog Supplies and Prices," 1942.

<sup>13</sup> Sherman E. Johnson, *Adapting Agricultural Programs for War Needs*, JOUR. FARM ECON. Vol. XXIV, No. 1, February, 1942.

On the other hand, hog producers who had been trying to get along with \$6 or \$7 hogs just before the war suddenly found hog prices shooting up to twice that figure. There is some question whether hog producers needed that much for all their hogs in order to increase production by the desired amount. Differential prices might have secured the same result at considerably lower national cost, and the forces leading toward a boom in land prices and a subsequent deflation would have been much reduced.

The administrative difficulties involved in putting Johnson's plan into effect would be no greater than those that are being handled under the Agricultural Adjustment Administration program, and the "freezing" effect on production patterns would probably be less. The plan would benefit agriculture, since it would stabilize agricultural profits. Profits on the basic allotment would remain stable, since the prices for the basic allotment would remain stable. In times of increasing demand, the higher prices for the additional production would be only sufficient to cover the additional costs plus a sufficient incentive to overcome inertia and increase production.

The cost of producing the basic allotment would remain stable except in times of great changes in demand—sufficiently great to affect the prices of the goods and services that farmers buy. In that case, perhaps parity prices, computed on a recent base period, could be used for the basic allotment. The prices for the additional product would be set with respect only to the current demand and supply situation for that product. This would correct one of the chief shortcomings of parity prices, which ignore changes in demand and supply for individual products since the base period.

These suggestions are exploratory, requiring much discussion and perhaps testing on a small scale. This testing could be conducted on a laboratory scale, for instance in one or two townships in different areas, for one or two commodities, to determine empirically just how farmers respond to various differential prices. Or "pilot-plant" experiments could be carried out on a county or state scale. The suggestions made above represent merely the opening up of alternative trails, in the expectation that several of them will prove unsuitable to further development. The whole area may be found unprofitable, and forward prices may have to be continued

<sup>14</sup> Actually, most of the wheat sold for feed was originally taken over from previous crops at lower figures than \$1.14. But that was merely a result of the fact that price levels had been rising for several years. Over a period covering both rising and falling prices, the average situation would be as shown above.

on their present basis—applicable to all the units produced.

In either case, the problem is—how should the levels of the price floors be determined? The job has been fairly easy during the past few years, because the slowly rising price level before 1941 and the more rapid rise since 1941 has offset the natural upward pressure on loan rates and purchase and selling prices. But when price levels cease to rise, or if they begin to fall, the job will be much harder to handle.

The best way would be to leave the Department of Agriculture free to determine the price floor for each product, in the light of the prospective supply and demand, each year. But the trend has been the other way; Congress has been taking the power to set loan rates and prices out of the Secretary's hand, and limiting the quantities that can be sold.

#### *A Workable Basis for Price Floors*

In this situation, a workable compromise plan with respect to durable crops would be first of all to determine for each crop the outside limits of the stocks required for stabilization purposes. Then provision could be made that whenever the actual stocks increased beyond that point, the loan rates would automatically be reduced, sharply, at some such rate as 1 per cent for every 1 per cent increase in the size of the stocks. Unless fluctuations in demand were exceedingly violent, this plan would mean that overly high loan rates, leading to excessively large storage stocks, would gradually correct themselves.<sup>15</sup>

There are objections to this proposal, since it would mean that loan rates and release prices would be reduced after storage stocks had built up to large amounts, and thus involve substantial inventory losses. Furthermore, it would be based too mechanically on the past and present situation to meet fully the needs of forward prices, which should be based on the estimated future situation. It would be better to leave the Secretary free to set forward prices in the light of the forward situation. But it is because the Secretary is not being left free that this proposal based on the size of the storage stocks is offered as a second choice.

How would the price floors be set for perishable products, such as livestock, butter, etc.? Loans cannot be made on them because of their perishability, and carry-over stocks could not be used as a

<sup>15</sup> For a fuller exposition of this proposal and of the theory of Commodity Credit Corporation losses mentioned in the next paragraph, see my USDA Tech. Bul. 826 referred to in an earlier footnote.

guide to price, because normally there are no carry-over stocks of these commodities. There are, however, some objective measures that could be used as guides in the establishment of prices for live-stock and livestock products. The hog-corn price ratio is widely recognized among farmers as a determinant of hog production. Hog prices could be set at the point that would provide the hog-corn ratio needed to call forth the desired production of hogs each year. The loan rate for corn, set as suggested above, plus the physical requirements for hogs, would thus set the price of hogs. If this resulted in so high a production of pork that the Federal Government had to expand its purchases and distribution of pork beyond the limits of nutritional needs or of public willingness to finance the program, the price of hogs and the loan rate for corn would both have to be reduced.

Beef cattle prices could similarly be set in their proper relation to hog and corn prices. Butter prices could be set in the same way. Thus the prices of these perishable products would be objectively determined on the basis of nutritional needs, public funds, and widely accepted livestock-corn price ratios and loan rates for corn and other feed grains, these loan rates in turn being based upon objective physical, carry-over quantities of the different grains.

It may well be objected that these proposals are unattainable—that farmers' representatives will never give up using loan rates and purchase prices to raise the level of agricultural prices; they will never be content to use the rates merely to stabilize prices and profits and keep changes in production in line with changes in demand. It is not my intention to argue about this, or to urge that the Department of Agriculture should do this or that. My position is simply this: If the present price policies of the Department of Agriculture, partly of their own devising and partly forced upon them, are continued after the present increase in demand is past, they will lead to such excessively large stocks of commodities and such large purchases of perishable commodities that these things, not economists' arguments, will force a revision of the price policies. I am merely trying to do a little post-war planning and point out some directions in which these revisions can be made, before the time comes when they will be forced upon the Department in any case. If nothing is done until then, the result could well be a revolution in price policy rather than a revision—a revolution of a kind that would cast out the good with the bad, and set back the hands of the clock for many years.

## AGRICULTURAL INCOME AND THE EXPORT MARKET, 1910-1940

MARION CLAWSON AND JOHN D. BLACK

*Harvard University*

MOST agricultural economists would agree that the export market for agricultural commodities is important; but their estimates of its value might differ greatly. Measurement of the effect of the export market is difficult. The importance of exports is obviously not measured by the value of the commodities shipped to other countries. The effect of exports on the domestic market must be considered, and also the alternative opportunities for producers of export commodities.

This article presents the results of a recent inquiry into the factors affecting agricultural income in the United States. Some preliminary results of this study are presented in *Parity, Parity, Parity*, by the senior author of this article. The analysis has been refined since then. The improvements in methodology will be discussed here, and the rationale behind the procedures in general.

Any analysis which seeks to measure the importance of one factor upon total agricultural income must consider, and perhaps measure, the effect of all other significant factors. The factors which influence agricultural income are numerous; and the way in which their different effects are isolated may influence markedly the apparent effect of any one factor.

One factor which might logically be expected to exert a considerable force upon agricultural income over a long period of years is the total population. The total number of people in the United States has increased from slightly over 90 million in 1910 to over 130 million in 1940. This is an increase of over 40 per cent in 30 years. With such a large expansion in the total market, it should be possible to sell a larger volume of goods at the same price and hence for a larger income, or the same volume of goods for a higher price and larger income. The influence of an increasing population can probably be removed satisfactorily by placing all data on a per capita basis. This ignores the influences of a changing age distribution of the population and of a changing distribution of a given total national income, but these must be very small, and wholly insignificant in comparison with the errors and other inadequacies of the data.

TABLE I. GROSS FARM INCOME, GENERAL PRICE LEVEL, REAL INCOME, AND VOLUME OF AGRICULTURAL PRODUCTION AND EXPORTS IN THE UNITED STATES, 1910-1940

Year	Gross Farm Income <sup>1</sup>		BLS index of wholesale prices of all commodities (1926=100)	Deflated gross farm income per capita <sup>3</sup>	Index of income per capita <sup>4</sup> (1926=100)	Deflated adjusted gross farm income per capita <sup>5</sup>	Index of vol. of production per capita <sup>6</sup> (1910-14=100)	Index of vol. of exports per capita <sup>7</sup> (1910-14=100)
	total	per capita <sup>2</sup>						
1910	7,503	82.1	70.4	125.2	99.0	126.1	98.9	80.3
1911	7,014	75.3	64.9	127.2	96.1	130.7	101.6	93.3
1912	7,657	81.0	69.1	126.4	99.2	127.0	102.8	114.0
1913	7,847	81.6	69.8	125.9	108.7	118.8	96.8	108.4
1914	8,064	82.0	68.1	130.4	99.0	131.3	99.7	103.1
1915	8,041	80.5	69.5	124.6	102.1	122.9	98.5	132.2
1916	9,266	91.5	88.5	110.0	109.7	103.1	93.1	11.13
1917	13,668	133.0	117.5	110.5	102.9	108.3	94.4	109.7
1918	16,271	156.5	131.3	114.5	92.4	120.8	98.7	92.8
1919	17,260	164.9	138.6	113.9	90.3	122.1	98.6	131.3
1920	16,256	153.5	154.4	94.0	90.2	100.8	98.8	119.6
1921	9,865	91.6	97.6	94.2	83.1	106.7	88.3	111.6
1922	10,901	99.6	96.7	103.5	88.1	112.7	94.8	118.5
1923	11,892	106.9	100.6	106.2	98.4	107.4	96.8	95.7
1924	12,211	107.7	98.1	110.1	95.2	113.9	98.0	87.4
1925	13,474	117.0	103.5	112.4	95.5	116.0	96.0	104.3
1926	15,229	113.3	100.0	113.3	100.0	113.3	97.7	86.5
1927	12,992	109.7	95.4	116.0	97.4	118.1	93.8	109.5
1928	13,686	114.1	96.7	118.6	99.8	118.8	96.8	88.8
1929	13,658	112.7	95.3	119.3	104.9	115.4	92.8	91.6

TABLE 1. GROSS FARM INCOME, GENERAL PRICE LEVEL, REAL INCOME, AND VOLUME OF AGRICULTURAL PRODUCTION AND EXPORTS IN THE UNITED STATES, 1910-1940 (Continued)

Year	Gross Farm Income <sup>1</sup> total	Gross Farm Income <sup>1</sup> per capita <sup>2</sup>	BLS index of wholesale prices of all commodities (1926=100)	Deflated gross farm income per capita <sup>3</sup>	Index of income per capita <sup>4</sup> (1926=100)	Deflated ad- justed gross farm income per capita <sup>5</sup>	Index of vol. of production per capita <sup>6</sup> (1910-14 =100)	Index of volume of exports per capita <sup>7</sup> (1910-14 =100)
1930	11,400	93.1	86.4	110.6	94.1	115.3	91.0	75.0
1931	8,528	69.0	73.0	100.6	82.2	114.7	94.0	69.0
1932	6,445	51.8	64.8	87.6	66.8	113.6	88.3	74.6
1933	6,868	54.9	65.9	90.9	66.7	118.1	87.3	64.3
1934	7,369	58.5	74.9	82.6	75.0	99.9	83.8	62.3
1935	9,058	71.4	80.0	93.1	81.2	107.0	81.8	40.3
1936	10,007	78.4	80.8	100.9	93.5	105.7	79.9	35.9
1937	11,139	86.7	86.3	103.1	96.2	106.0	93.1	41.2
1938	9,567	73.9	78.6	98.4	91.5	104.5	89.1	57.7
1939	9,918	76.1	77.1	103.7	97.6	105.5	92.1	45.8
1940	10,286	78.2	78.8	103.9	103.2	101.7	93.5	52.2

<sup>1</sup> Including changes in inventories but excluding government payments.<sup>2</sup> Based on population on January 1 of specified year.<sup>3</sup> Deflated to 1926 price level. Points on line in Figure calculated by estimating gross farm income per-capita at 1926 prices equals \$107.5, and that it increases or decreases \$1.25 for each change of one point in the index of wholesale prices of all commodities. The trend values so calculated was converted to an index (1926=100), and this was divided into actual per capita gross farm income to obtain deflated income per capita.<sup>4</sup> Calculated by dividing incomes of persons not on farms by Bureau of Labor Statistics index of cost of living, and converting to an index with 1926 as the base. For data on income, see Material Bearing on Parity Prices, presented by Howard R. Tolley to a sub-committee of the Committee on Agriculture and Forestry, United States Senate, July 1941.<sup>5</sup> Adjusted to 1926 real incomes. The line in the Figure was calculated on the basis that deflated per capita gross income at 1926 real income was \$112.9 and that it increased or decreased \$.78 for each change of one point in the index of real income. The values so obtained were converted to an index (1926=100) and these values were divided into the deflated gross farm income per capita.<sup>6</sup> Based on data in Material Bearing on Parity Prices and the basis of population on July 1 of each year.<sup>7</sup> Based on Bureau of Agricultural Economics index numbers of physical exports, and population on July 1 of each year.

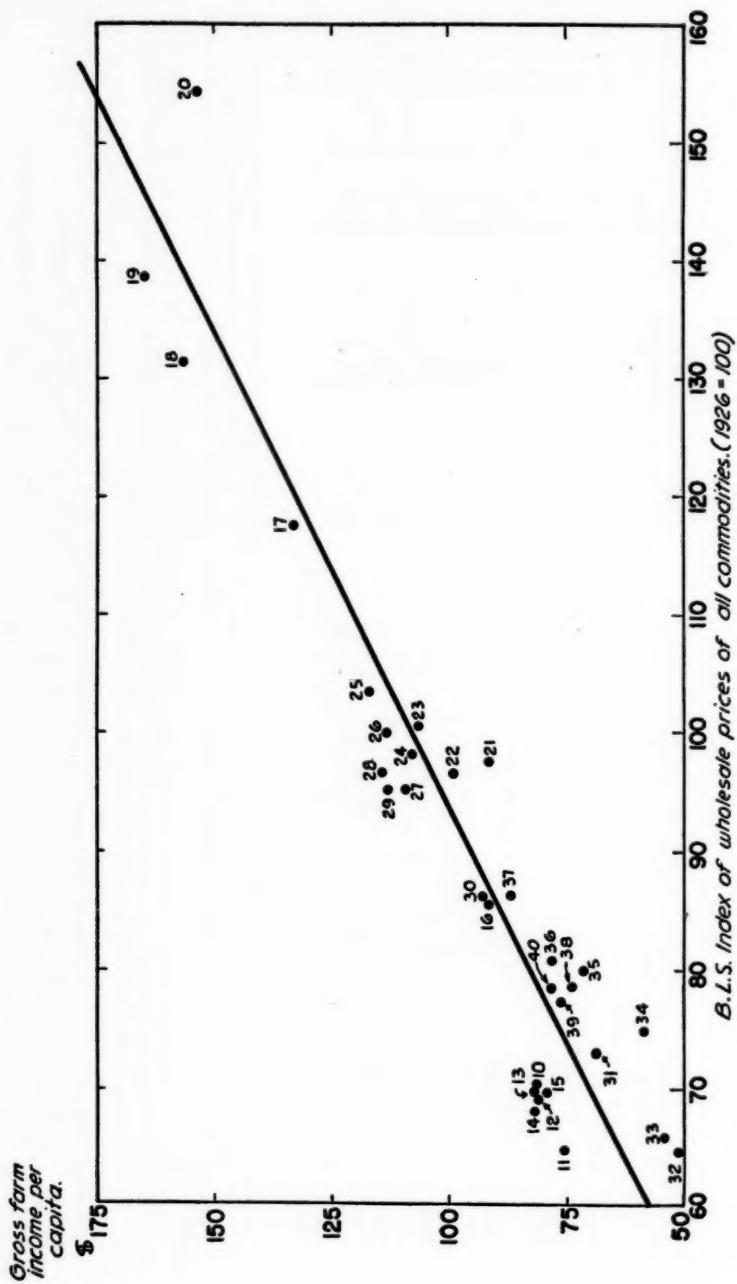


FIG. 1. GROSS FARM INCOME PER CAPITA IN RELATION TO GENERAL PRICE LEVEL IN THE UNITED STATES, 1910-1940  
(Individual years indicated by dots)

When gross agricultural income is expressed in current dollars, it is of course affected by the general price level. The earlier practice in dealing with this was to "deflate" by dividing prices or income by some "suitable" index. Thus Henry Schultz in his *Theory and Measurement of Demand* "deflates" prices in this way, defending his procedure (p. 149) by saying that it is preferable to the introduction of one more variable in his correlation equations. Nevertheless, it has become apparent that this procedure may in many cases largely invalidate the results. The difficulty usually comes because the price series and the prices of the commodity under study are not at the same point or market. Price indices usually relate to wholesale markets; whereas agricultural income depends upon farm prices. Shepherd, in *Agricultural Price Analysis*, concludes that on the average there is a 1:1.5 relation between swings in the general price level, as measured by the Bureau of Labor Statistics index of wholesale prices of all commodities, and swings in farm prices of agricultural commodities. It would not be safe, however, to deflate generally on this basis, especially for individual products with their greatly varying price spreads. In this analysis, the index of the general price level is treated as a variable. The 1910-1940 period shows a close relation between the Bureau of Labor Statistics index of wholesale prices of all commodities and gross farm income per capita (Table 1 and Figure 1). The years seem to be grouped interestingly, the pre-war years lying at the left and above the lines, the depression and recent years also at the left but below the line, the 1920's largely in the center, and the war years at the right.

The simple and obvious way to "deflate" gross farm income data is to divide by the trend value or average relation as shown in Figure 1. Thus in 1910, when the Bureau of Labor Statistics index was 70.4, the value shown by the line in Figure 1 was \$70.50, or 65.6 of the value for 1926. By dividing 65.6 per cent into the actual per capita figure of \$82.10, a deflated figure of \$125.20 was obtained. This means that when a point on the ratio line of Figure 1 is only half as large as in 1926, the per capita gross farm income must be doubled in order to be in dollars comparable to 1926.

This is not the only procedure which could be used. At one stage in this analysis, the gross farm income was estimated for 1926 population and prices, and adjustments were made by adding or subtracting, depending upon changes in price level and population. The results were not greatly different within the range of most of

the data, but on logical grounds, the multiplicative relation seems preferable.

A third factor which can logically be expected to influence gross farm income is the real income of the consuming public. Payrolls have frequently been introduced into correlation analyses of prices. Unless adjusted for differences in price level, such indices measure both price level and real income, with seriously misleading results in many instances.<sup>1</sup> A good measure of physical volume of production per capita could safely be used instead. Upon trial, it gave

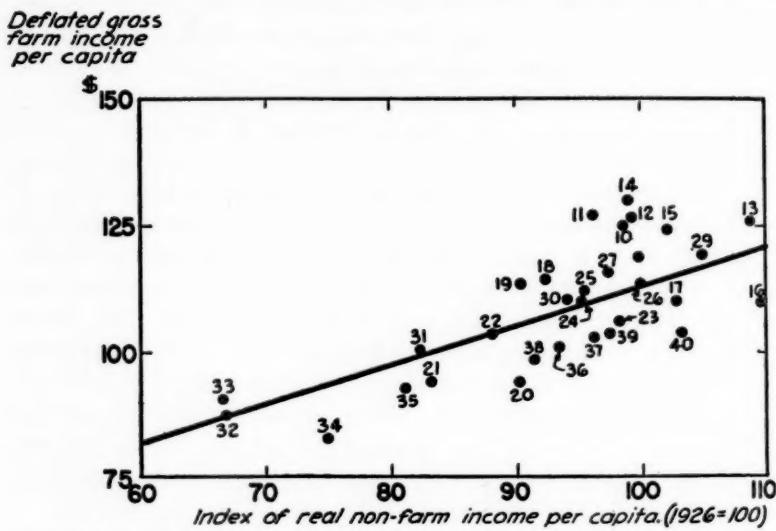


FIG. 2. DEFLATED GROSS FARM INCOME PER CAPITA IN RELATION TO REAL NON-FARM INCOME PER CAPITA IN THE UNITED STATES, 1910-1940 (Individual years indicated by dots)

about the same results as income of non-farm people (as reported in *Materials Bearing on Parity Prices*) divided by the Bureau of Labor Statistics index of cost of living. The year-to-year changes were almost identical in direction and extent in the years for which the volume index was available.

Thus analyzed the index of real income per capita shows a fairly close relation to deflated gross farm income per capita (Figure 2). The pre-war years are largely above the average line; the years since 1934 are below it. But on the whole, the relation is fairly good, and entirely logical.

<sup>1</sup> See Wages and Earnings by John D. Black, *Land Policy Review*, June 1942.

Adjustment for differences in real non-farm income may be made in more than one way. The procedure followed was the same as for Figure 1. Thus, the deflated gross farm income shown by the average line in Figure 2 was \$86.90 per capita in 1933, corresponding to an index of real income of 66.7. The gross farm income per capita was \$112.90 in 1926. The 1933 figure was 77.0 per cent of this amount. By dividing 77.0 per cent into \$90.90 the deflated gross farm income for 1933, a deflated and adjusted figure of \$118.10 is obtained. This multiplicative process assumes that the proportionate effect of a 10 per cent higher or lower real income is the same whether price level is high or low and regardless of population. This seems reasonable. An additive equation, used at one stage in the analysis gave very similar results, however, particularly for the more usual range of the data.

As a result of these processes, the deflated and adjusted gross farm income data in Column 7 of Table 1 are obtained. From them have been removed the effect of changes in general price level and in real non-farm income, at least by one method. The results obtained are reasonable and the relationships are fairly close. The effect of a slightly different procedure, within this same general framework, will later be shown not to affect the results seriously.

Before attempting a direct study of our deflated and adjusted gross farm income in relation to export outlets, it may be worthwhile to speculate upon the relation between total volume of production and deflated adjusted gross farm income. Even though the demand for some agricultural commodities is moderately elastic, if all agricultural commodities are combined, so the usual argument goes, substitution between commodities is no longer possible. When total supplies are short, consumers must therefore bid up; and when total supplies are large, prices will fall very low because consumers will take only a certain volume. "The capacity of the human stomach is limited." Ignoring the fact that a large portion of the human stomachs were never properly filled, this argument is naive and incomplete for several reasons:

1. It ignores the effect of storage from one year to another. When supplies are large, they need not all be consumed in the given year. Storage transfers part of the supply to the following year. When supplies are short, consumption is partly maintained by a decrease of customary storage stocks. This process is effective only for non-perishable goods. It cannot be expected to prevent changes in prices, but it may greatly reduce the amplitude of such changes so

as to change the demand curve very materially from what it would be in the absence of storage. If supplies were very large or very small for several years in succession, storage would have a more limited effect.

2. The effect of foreign trade is ignored. In spite of tariffs and quotas, agriculture in the United States is not yet in a fully closed economy. If supplies are large, there is a great incentive to ship abroad. This helps to prevent the domestic price from falling as low as it otherwise would. When supplies are short, imports may supply domestic needs and minimize price rises.
3. Non-food uses of agricultural commodities are neglected. Part of an agricultural output is used for clothing and for industrial uses, the demand for which is probably much more elastic than the demand for food.

A reasonable expectation from these circumstances is that the demand curve for all agricultural commodities will be highly inelastic for very small volumes, the elasticity increasing gradually as volume increases and poorer people and non-food uses become more important, until a point of export is reached after which it may be highly elastic for further increases in volume, at least until our exports became a major factor in the world supply. Conceivably a rather sharp change in direction of the demand curve occurs at the point where exports became a major factor. It is entirely possible, then, that the total revenue curve, if a wide range in output occurs, is U-shaped, with falling revenues for very small volumes and rising revenues with larger volumes.

The actual data for 1910-1940 show that the relation between volume of output per capita and deflated adjusted gross farm income per capita falls into three rather distinct periods (Figure 3). In the 1910-1919 period, gross farm income rose with increased output. In fact, it rose so fast that the index of prices was higher when the volume was larger than when it was small. The correlation is fairly high for this 10-year period. In the 1921-1933 and 1934-1940 periods, the relationships are not so close. The Pearsonian correlation coefficients are virtually zero, because the lines are practically horizontal. There is some evidence that gross farm income rose slightly with larger output in the former period, and fell slightly in the latter period. The extent of these increases and declines is not large, and we can not place much confidence in our average lines. But it seems fairly clear that gross farm income did not rise much even when agricultural output fell sharply.

Figure 3 is not identical with Chart IX of Chapter XV of *Parity*,

*Parity, Parity.* Gross farm income is differently expressed in the two charts. The first analysis used an additive equation, instead of a multiplicative one and the conversion to a constant population was not so logically handled. The net effect of the changes has been to reduce the slope of each regression line, but the direction is the

*Deflated, adjusted  
gross farm income  
per capita.*

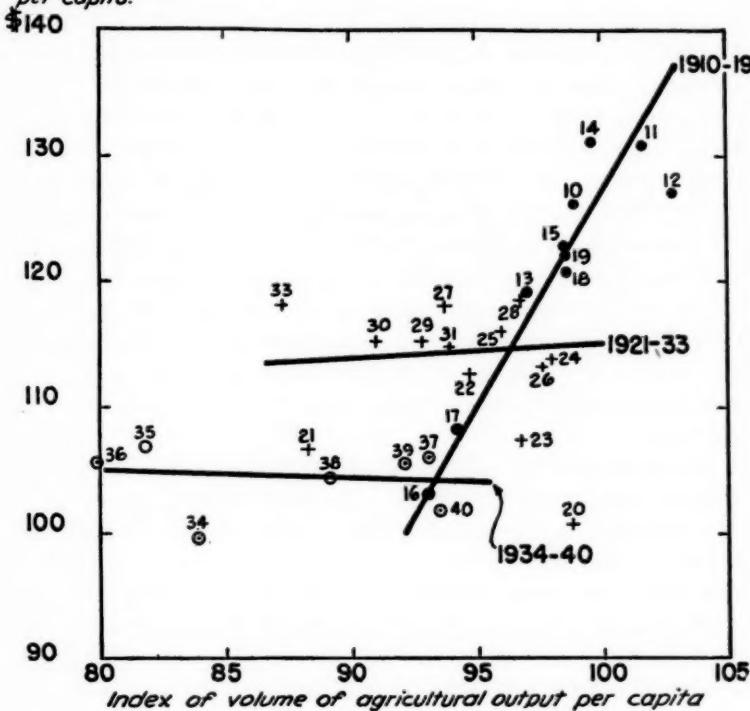


FIG. 3. DEFLATED AND ADJUSTED GROSS FARM INCOMES PER CAPITA IN RELATION TO VOLUME OF AGRICULTURAL OUTPUT IN THE UNITED STATES, 1910-1940

same. The authors now feel that the present analysis is a little more accurate than the earlier one. The fundamental conclusions are not changed.

The relations shown in Figure 3 are reasonable. During and prior to World War I, the United States enjoyed a fairly good export market for agricultural commodities. When we had large crops of wheat or corn, we could ship the wheat or the pork products

abroad, primarily to Europe. This not only brought to the farmers money directly, but it kept up the domestic price of these commodities. The demand was much more elastic because of these export outlets than it would have been without it. The favorable influence of the export market extended to all agricultural groups, whether producing for export or not. It lessened competitive pressure on the farmers who would normally not produce for export market.

After the close of World War I, the picture changed. Canada, Australia, Argentine, Brazil, Egypt and other areas provided an increasing share of Europe's needs for wheat and cotton. The war had provided a great incentive to self-sufficiency for the European nations. Our exports met increasing resistance and competition. Even when we were able to sell abroad, it was only at low prices.

Since 1934, the situation has become worse. The importing countries have passed restrictive legislation to support their depressed agriculture. In some countries, there has been a tremendous rush for self-sufficiency in anticipation of the coming conflict. Our own agricultural measures have not encouraged exports. When our output was relatively large, as in 1937, 1939, and 1940 it brought a total income slightly smaller than when it was very small as in 1935 and 1936.

The export market was an important factor in total agricultural revenue only in the first of these periods. Taking the whole 30-year period, the variation in gross farm income is explainable mainly on the basis of changes in general price level and real income.<sup>2</sup> Only the white unhatched area between the lines in Figure 4 can be considered as associated with exports. The changes in general price level account for the largest part of the variations in gross farm income, nearly two-thirds of it. Adjustment for variations in real income materially improve the fit in the two depression periods. There is comparatively little left for the effect of volume of production and exports. But this difference is not unimportant. In the pre-war years, annual income was more than one billion dollars higher than the indices of price level and real income would have indicated; since 1934, from one-half to one billion dollars lower. Had the relation of gross farm income to price level and real income been de-

<sup>2</sup> This figure is identical with Chart I, Chapter XVI, Parity, Parity, Parity. It is based upon the additive equations previously mentioned, but is substantially the same as one constructed from the relations shown in Figures 1 and 2.

terminated on the basis of a good export market, such as that of the pre-war period, the difference between estimated and actual gross farm income would have widened steadily in recent years. Government payments to farmers have roughly offset the loss of foreign markets since 1934, bringing gross farm income back to the level of the 1920's (allowance being made for differences in price level and real income). But they have not begun to restore the pre-war relation.

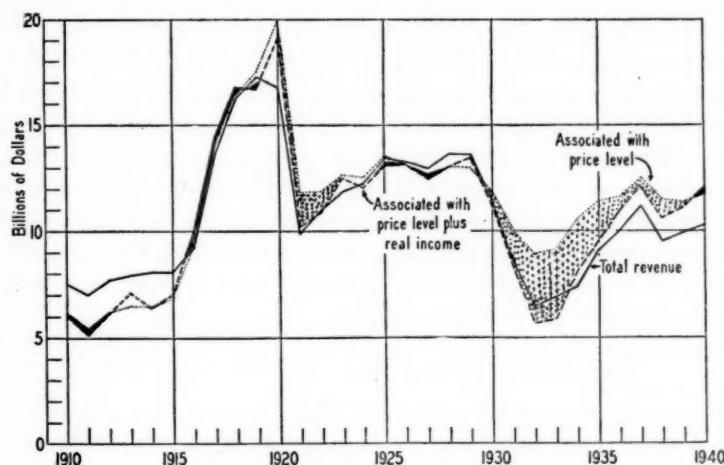


FIG. 4. EXTENT TO WHICH TOTAL AGRICULTURAL INCOME IS EXPLAINED BY CHANGES IN GENERAL PRICE LEVEL AND IN NON-FARM REAL INCOME

One effect of the loss of export outlets is to increase the importance of the role which government control and storage programs can play. A large output now means a somewhat smaller income than a small output. The demand for storage at government expense and a control program to lessen production in following years is likely to be great. Somewhat more rational arguments can be marshalled in favor of such a program under the relationships of 1934-1940 than under those of 1910-1919.

To say that such a good export outlet exerts a strong and favorable effect upon gross farm income does not mean that the difficulties of regaining export outlets are not recognized. The difficulties are great; so is the stake.

## WARTIME WHEAT POLICY IN CANADA

H. S. PATTON  
*Michigan State College*

**I**N CONSPICUOUS contrast with the War of 1914-18 which induced the maximization of wheat production and export in North America, the present world conflict has served to aggravate the wheat surplus problem which has plagued overseas wheat exporting countries ever since the late twenties. The wartime measures taken in Canada towards mitigating the impact of this situation upon the economy of her three Prairie Provinces have involved adaptations and expansions of relief and stabilization arrangements developed during the distressing prewar decade. In each of the last four years the Dominion Parliament has enacted special legislation designed to deal with the handling of the forthcoming wheat crop in the light of current conditions and prospects. While influenced to some degree by parallel government action in the United States, the policies and procedures pursued in Canada afford significant contrasts with the former.

### *I. Canadian Wheat Policy Up to the Eve of War*

The agricultural depression of the thirties impinged with special severity and persistence upon the Prairie Provinces of Western Canada. The ruinous course of wheat prices<sup>1</sup> was aggravated by a five-year sequence of unprecedented drought over a large portion of the western grain belt.<sup>2</sup> This conjuncture was reflected in a decline in the wheat cash income of farmers in the Prairie Provinces from an average of \$380 million for the calendar years 1926-29 to an average of \$132 million during the nine years 1930-38.<sup>3</sup> It was inevitable therefore, as the collapse of the debt paying, tax paying and purchasing power of nearly a quarter of the Dominion's population reacted upon the national economy, that an increasing measure of federal intervention and assistance should come into action, as in every other wheat exporting country during the thirties.

<sup>1</sup> The annual average farm prices of wheat in Canada were below 62 cents a bushel in every crop year of the thirties except 1936 and 1937, the lowest point being 35 cents in 1932-33. *Canada Year Book*, 1940, p. 204.

<sup>2</sup> Whereas the wheat crop of the three Prairie Provinces had averaged 378 million bushels during 1923-27, the outturn from a larger seeded average during the drought years 1933-37 averaged only 230 million.

<sup>3</sup> See G. E. Britnell, The War and Canadian Wheat, *Can. Jour. of Econ. & Pol. Sci.*, August 1941, p. 411.

Three phases may be distinguished in the evolution of federal wheat price and marketing policy in the decade preceding the present war.<sup>4</sup>

(1) *Market Stabilization Measures, 1930-35.* As an outcome of the débâcle of wheat prices and of the Canadian Wheat Pool in 1930, the Dominion government appointed John I. McFarland as manager of the Pool's Central Selling Agency, and gave guarantees to the bank, in respect to advances against the Pool's carryover of 67 million bushels and members' deliveries of the 1930 crop. Although Canadian exports of wheat (and flour) were pushed to the extent of 258 million bushels during the 1930-31 crop year, the continued decline in wheat prices and the lack of speculative support for hedging contracts on the Winnipeg futures market, led to a shift from a policy of forced liquidation to one of limited market support. This took the form of purchases of futures at times of greatest weakness, conducted through the Pool Central Agency (Canadian Cooperative Wheat Producers, Ltd.) under McFarland's management, with the financial guarantee of the federal government.<sup>5</sup> These operations, paralleling those of the Grain Stabilization Corporation of the U. S. Federal Farm Board, were continued beyond the demise of the latter, in the face of the opposition of the regular grain trade in Canada. Although Canada's share of shrinking total world wheat exports never fell below 30 per cent during McFarland's operations, the holdings (cash wheat and futures) of his stabilization agency at the beginning of the 1935 crop year had accumulated to 214 million bushels.

(2) *The Canadian Wheat Board, 1935-38.* Throughout the early thirties the Wheat Pool organizations had persistently demanded the re-establishment of a compulsory federal wheat board, such as had functioned during 1919-20, as an alternative to the open market system, however supported. On the other hand growing concern was registered by the regular grain trade, the financial community and Eastern Canada generally, over Canada's mounting wheat

<sup>4</sup> Federal relief measures in Western Canada, during the thirties (as distinct from wheat price supporting measures) included loans and direct contributions to provincial relief commissions, the Farmers' Creditors Arrangement Act of 1934, and the Prairie Farm Rehabilitation Act of 1935. For a detailed discussion of these federal-provincial relief programs, with special reference to Saskatchewan, see G. E. Britnell, *The Wheat Economy* (University of Toronto Press, 1939), particularly chapters 5 and 8.

<sup>5</sup> See H. S. Patton, *The Canadian Wheat Pool in Prosperity and Depression, in Commodity Controls in the Pacific Area*. Institute of Pacific Relations, 1935.

carryover, and the contingent liabilities of the federal government. The outcome was the enactment, in the last year of the Bennett ministry, of the Canadian Wheat Board Act of July 1935. Under this significant but compromising measure a board of three commissioners with an Advisory Committee, was created, with power to establish from year to year (subject to the approval of the cabinet) a fixed minimum price at which it would accept deliveries of wheat, from producers only. The latter were to receive participation certificates entitling them to share in any surplus that might be realized by the Board, in excess of its delivery price and marketing costs. The Board was also made responsible for disposing of the stabilization stocks held in the name of the Canadian Cooperative Wheat Producers. The Board's mandate under Section 8(b) of the Act was "to sell and dispose of from time to time all wheat which the Board may acquire, for such price as it may consider reasonable, with the object of promoting the sale and use of Canadian wheat in world markets." The Minister of Finance was authorized to guarantee bank loans to the Board.

The system thus instituted was that of a voluntary instead of a monopoly government wheat board. It gave the primary producer the option of selling his wheat on the open market, or of delivering it to the Board at its fixed seasonal price and speculating on the redemption value of his participation certificate. In effect it constituted a sharing between prairie farmers and the Dominion at large of the risks and financial burden of the impact of chaotic conditions in the international wheat market.

The setting of a minimum price by the Board to be effective for a year in advance has involved the balancing of numerous and conflicting considerations, the size of the carryover and of the new crop, the "elasticity" of farmers' response to the announced price, the prospects of export movements, the relation of the minimum price to farmers' costs and needs, and the prospective cost to the Treasury of underwriting a two price system. In practice the Board, under the King administration,<sup>6</sup> has generally leaned in the direction of safety and liquidity. While the minimum price of 87½ cents (basis No. 1 Northern, Fort William and Vancouver) announced by the first Board in September 1935 was continued by the suc-

<sup>6</sup> While the Bennett government appointed J. I. McFarland as chief commissioner of the Board in August 1935, the defeat of the Conservatives in the federal elections three months later, was followed by a complete change in the Board personnel by the King Ministry in December 1935, and the institution of a more aggressive selling policy.

cessor Board during the two succeeding crop years (with the significant proviso that it would be effective only if the closing market price fell below 90 cents), it was only during part of the 1935-36 season that this price was above the market, with the result that the Board was not called on to absorb any deliveries from farmers during the 1936 and 1937 crop years. A continuation during these seasons of the succession of subnormal crops due to drought, and the upturn in world wheat prices in 1936-37, permitted the Board to reduce its inherited holdings to a mere 7 million bushels at the end of July, 1937. With a near normal crop in 1938 marking the end of the drought cycle and with world wheat prices plunged to new low levels, the Board dropped its price to 80 cents for the 1938 crop year. Open market prices, however, fell much below this point during the year, and practically all deliveries by farmers went to the Board. Although the latter pursued an aggressive selling policy, it ended the year with a carryover of 86.5 million bushels, and a reported loss of 61 million dollars. This deficit may be regarded as the measure of federal subsidization of Western wheat growers in 1938-39.<sup>7</sup>

(3) *Wheat Industry Legislation of 1939.* In the 1939 regular session of Parliament, preceding the actual outbreak of war, a considerable body of legislation affecting the wheat industry was enacted.<sup>8</sup> These measures were based in part on the findings of the Turgeon Grain Inquiry Commission which submitted its report in 1938 after an exhaustive two years' investigation, and in part on the experiences of Wheat Board losses in the preceding year, and the reemergence of the wheat surplus problem in the degenerating international situation.

The *Wheat Board Amendment Act* embodied two important changes. One, calculated to relieve the Wheat Board from the conflicting pressures to which it was annually subjected in setting the guaranteed price to producers, enacted a statutory basic initial price of 70 cents (with participation certificate feature continued) in substitution of the Board's discretionary power to set the price.

<sup>7</sup> For fuller discussion of Canadian government wheat policies during the inter-war period see H. S. Patton, *Observations on Canadian Wheat Policy Since the World War*, *Can. Jour. of Econ. & Pol. Sci.* May 1937; V. C. Fowke, *Dominion Aids to Wheat Marketing, 1929-39*, *Can. Jour. of Econ. & Pol. Sci.* Aug. 1940; and article by F. W. Grindley on The Canadian Wheat Board in *Canada Year Book* 1939, pp. 569-580.

<sup>8</sup> These measures are summarized in a memorandum by G. E. Britnell on *Dominion Legislation Affecting Western Agriculture, 1939* in *Can. Jour. of Econ. & Pol. Sci.*, May 1940, pp. 275-282.

The other, designed to afford the maximum protection only to smaller producers, stipulated that the Board henceforth may "buy wheat not in excess of 5,000 bushels from any one producer in any one crop year."

Another measure of much significance to Western grain growers was the **PRAIRIE FARM ASSISTANCE ACT**. This act introduced an adaptation of the insurance principle as an alternative to the method of direct relief in dealing with widespread agricultural distress resulting from crop failures and abnormally depressed prices. It provided two distinct methods of approach to the problem presented by the conditions of a given year under the categories of "crop failure assistance" and "national emergency assistance."

"Crop failure assistance" may be invoked on application of a provincial government on behalf of its farmers in any crop year in which it is established that the average yield of wheat is not more than 5 bushels per acre in each of at least 135 townships in Saskatchewan or 100 townships in Manitoba or Alberta. In such case assistance may be given to each farmer in a crop failure area, ranging from a minimum of \$200 to a maximum of \$500 (graduated according to total cultivated acreage).

Under the second scheme "a national emergency" may be declared by the Governor in Council in respect to any crop year in which the average price of wheat is less than 80 cents a bushel.<sup>9</sup> In such a year assistance payments may be made, on a rather complicated scale, to each farmer in any township in which the average yield of wheat is found to be less than 12 bushels per acre. "Emergency assistance" is thus designed to cover a distress situation caused by a combination of low prices and low yields (as in the 1933-35 period) when the financial burden of maintaining the farmer on the land becomes too heavy for the individual, the municipality or the province.

The "insurance" feature of the Prairie Farm Assistance Act is to be found in the compulsory levy which it imposes of one per cent of the net purchase price of all wheat, oats, barley and rye marketed from the farms of Western Canada. When the receipts of this levy are insufficient to meet claims under the Act, the Minister of Finance may authorize payment of any deficiency out of Consolidated Revenue, such advances to be repayable without interest to the

<sup>9</sup> "Average price" for the purpose of this act is defined as "the average of the daily closing prices of No. 1 Northern, Fort William basis, between July 31, and November 1."

amount that the levy subsequently provides. In view of the succession of unfavorable years through which the West had passed the Act specifically declared in advance that the 1939 crop year should be deemed an "emergency year," thus making available assistance under that category.

## II. *Federal Grain Measures During the War Years*

From the foregoing review of Canadian wheat policy and legislation during the thirties it will be seen that Canada had evolved a far-reaching system of federal assistance to its wheat industry and a well tried national "buffer" wheat marketing agency, through which the Dominion was fairly well prepared to meet the new shocks arising out of the reemergence of war. Up to 1939, however, no direct attack had been made on the problem of production control. The coincidence of the war years with a cycle of high wheat yields in Western Canada has compelled war-time action in this direction. The emergency measures devised to deal with the special situations developing in successive war years are reviewed in this section of the paper.<sup>10</sup>

*The 1939 Crop Year. Boom and Collapse*—The marketing of Canada's huge 1939 wheat crop of 552 million bushels (the largest since 1928) was subject to Wheat Board price and delivery restrictions as enacted on the eve of war. Despite these limitations and the speculative rise in wheat prices in the early months of the war, the Board received over 75 per cent of farmers' total marketings. Although Canada's exports of wheat and flour rose sharply during the "phony war" phase, the German drive to the Atlantic in the spring of 1940 abruptly shut off virtually all continental European wheat outlets and generated a price collapse which was checked only by action of the Winnipeg Grain Exchange on May 18, at the request of the Dominion government, in setting minimum prices below which no trading was to be permitted.<sup>11</sup> Just prior to these events prairie farmers, anticipating an opportunity of recouping their losses after ten years of drought and depression in a war-time wheat boom like that of 1914-18, had seeded 2 million additional acres in wheat. In the summer of 1940 therefore Canada was con-

<sup>10</sup> For a highly informative and detailed analysis of federal wheat measures up to the spring of 1941, see G. E. Britnell, *The War and Canadian Wheat*, *Can. Jour. of Econ. & Pol. Sci.*, August, 1941.

<sup>11</sup> This action coincided with similar measures taken on the Chicago Board of Trade at the instance of the Secretary of Agriculture. Winnipeg July futures were pegged at 71 cents, and Chicago July futures at 79 cents.

fronted with the prospect of record wheat supplies and shrivelled demand. Although exports of Canadian wheat and flour amounted to 208 million bushels in 1939-40, the close of the crop year found Canada with a carryover of 300 million bushels, of which 133 million was in the hands of the Wheat Board.

*The 1940 Crop Year. The Storage Crisis*—With a record crop in prospect, on top of a record carryover, an acute storage problem loomed up, in addition to the financial problem of supporting the purchase of the 1940 crop. To meet this marketing crisis Parliament made further changes in the Wheat Board Act in the summer of 1940. With a view to ensuring an equitable sharing of available elevator space among all producers, the 5,000-bushel limitation on individual wheat deliveries to the Board was replaced by an amendment authorizing the Board to regulate deliveries of all kinds of grain by farmers to elevators and mills, and by a provision for payment of an allowance for farm storage of wheat. The guaranteed Wheat Board basic price of 70 cents was continued for the 1940 crop year, but as a means of spreading the financial burden of this guarantee under prospective market conditions, the amended act provided for a processing tax of 15 cents a bushel on all wheat utilized in the manufacture of flour and other wheat products entering domestic human consumption, the proceeds of which were to be paid to the Wheat Board.<sup>12</sup>

The machinery worked out by the Board for the regulation of grain deliveries involved the making of a sworn declaration by each farmer of the number of acres he had seeded to wheat and other grains in 1940, on the basis of which he was issued a delivery permit book. On August 7 the Board announced a first delivery quota of 5 bushels per seeded acre of wheat, and the same for oats and barley. Quotas were gradually increased, as the huge volume of grain moved to mills, seaboard elevators and export channels, and as temporary bins were added by private and pool elevator companies,<sup>13</sup> but it was not until April 21 that the Board was able to announce that all elevator stations in Western Canada had been made open delivery points.

<sup>12</sup> This processing tax, in view of the depressed price of wheat, was expected to be absorbed by millers and bakers, and no advances in flour or bread prices have been permitted without approval of the Wartime Prices and Trade Board.

<sup>13</sup> Encouraged by generous federal income tax concessions for the purpose, elevator companies expanded their country storage capacity by some 60 million bushels during the fall of 1940.

While the wheat delivery quota system was equitable in its conception and was ably administered by the Wheat Board, it involved much hardship among farmers in the Prairie Provinces (where ordinarily 80 per cent of the wheat crop is marketed by the end of November), since they were unable to obtain loans or advances on the wheat compulsorily held back on their farms. Because of legal obstacles and the lack of safe storage on prairie farms, no bank would consider making loans on wheat not represented by an elevator certificate, and the Dominion government refused to assume the responsibility. On the other hand farmers benefited to the extent that, when they were able to deliver their wheat to the Board, they received as an increment to the basic price of 70 cents a farm storage payment at the same rate which elevators were permitted to charge. Moreover, under the "emergency" provision of the Prairie Farm Assistance Act, 40,257 Western farmers in municipalities having wheat yields averaging less than 12 bushels an acre, received awards aggregating \$5,777,600.

Although exports of Canadian wheat and flour in 1940-41, amounting to 230 million bushels, were the largest since 1935-36, and exceeded those of Argentina, Australia and the United States combined, the close of the crop year (July 31) found a record carry-over of 480 million bushels of the huge 1939 and 1940 crops in elevators and on farms.

*The 1941 Crop Year. Canada's First Wheat Production Control Program.*—The plugged condition of Canada's grain storage facilities occasioned serious concern to both Western grain growers' organizations and to the Dominion government as the time of spring wheat seeding approached in 1941. It was recognized in all quarters that the situation clearly dictated a drastic curtailment of the record wheat seedings of 27,750,000 acres in Western Canada the preceding year. Wide differences existed, however, between farmers and the government, as to the methods of effecting this adjustment with minimum hardship to grain growers and without excessive cost to the Dominion at large.

The program formulated by the Western pool organizations and presented to Ottawa in February by the Canadian Federation of Agriculture proposed: (a) that adjustment of wheat supply should be effected, not by compulsory reduction of seeded average, but by limiting total deliveries by farmers to an amount which the Wheat Board might be expected to market during 1941-42, under

a quota system equitably adjusted to individual past production records; (b) that as a compensation for such delivery restrictions the Wheat Board's initial payment be increased, through raising the processing tax from 15 to 50 cents a bushel; (c) that in addition to continuing the system of farm storage allowances, the government make provision for advances to growers for the construction of adequate farm storage facilities, and also against the portion of individual delivery quotas held on farms.

The government's 1941 wheat program, as announced in March and as enacted, with minor modifications on April 30, embodied only the first of the farmers' proposals. It stipulated that total primary deliveries of the 1941 wheat crop to the Wheat Board for the open market would be limited to 230 million bushels<sup>14</sup> (of which 223 million were allotted to Western Canada). On a normal yield basis this called for a 35 per cent reduction in the acreage seeded in 1940, and individual quotas were to be computed on this basis.<sup>15</sup> The minimum price was continued on the 70 cent basis, with farm storage allowances (equivalent to  $\frac{1}{2}$  cent per month), but limited to total deliveries of 230 million bushels. By way of compensation for the drastic reduction in wheat cash income which this involved, a schedule of bonus payments was announced for each acre diverted from the farmer's 1940 wheat base to summerfallow, grass or coarse grains in 1941.<sup>16</sup> The sum of 35 million dollars was appropriated for such diversion bonuses.

Although Western farm organizations registered strong dissatisfaction over the government's refusal to increase the Wheat Board price for 1941, and to provide for advances against farm-stored wheat, prairie farmers showed a rather notable response to the government's program in their 1941 planting operations. Official statistics indicated that the area seeded to wheat in the Prairie Provinces in 1941 was 6.6 million acres less than in 1940—a reduction of 24 per cent. The bulk of this diverted acreage was summerfallowed under the attraction of the \$4 bonus. With no price guarantee for coarse grains, the acreage sowed to oats, barley and rye

<sup>14</sup> This figure was based on estimated commercial domestic requirements of 50 million bushels and prospective exports of 180 million bushels.

<sup>15</sup> Pursuant regulations issued by the Canadian Wheat Board provided for a uniform initial delivery quota of 5 bushels per quota acre from all producers, with subsequent quotas to be adjusted to established yields.

<sup>16</sup> These payments were at the rates of: (a) \$4.00 for each diverted acre summerfallowed in excess of 1940; (b) \$2.00 for each reduced wheat acre sown to coarse grains, grass or clover; (c) an additional \$2.00 for each acre which was summerfallowed or sown to coarse grains or grass in 1941, and which is in grass or rye on July 1, 1942.

showed an increase of only slightly over 10 per cent, while scarcity of grass and clover seed limited expansion in that form.

Owing to lower yields as well as reduced acreage, Canada's 1941 wheat crop turned out to be 45 per cent smaller than in 1940. Although export shipments proved somewhat larger than estimated when the 1941 program was announced, it appeared that the carry-over of Canadian wheat at the end of the crop year would still be in excess of 400 million bushels. In the meantime Eastern farmers were experiencing acute shortages of local feed supplies in meeting the increased demands for meat, dairy and poultry products for shipment to Britain and expanding domestic consumption. With a view to easing the situation, the Dominion government announced in the fall of 1941 that it would pay the freight charges on the shipment of feed grains moved east from the Head of the Lakes. At the same time (October 1941) Prime Minister King announced that the government, under authority of the War Measures Act, would supplement the income of Western farmers from the restricted 1941 wheat crop by Prairie Farm Income payments of 75 cents an acre (irrespective of yield) on one-half of the farmer's total cultivated acreage, up to an individual maximum of \$150.

*The 1942 Grain Program. Compensated Diversion and Income Stabilization*—At the beginning of 1942 the situation clearly pointed to the necessity of a revised grain program designed to realize the triple objectives of: (a) continuing the curb on wheat production; (b) insuring a greater measure of compensation to wheat producers for such restriction, especially in view of rising costs, and (c) stimulating a substantially larger production of feed crops and of flaxseed to meet war requirements.

At the Wheat Board's basic price of 70 cents, limited to 223 million bushels, the cash income from marketing of the 1941 wheat crop by Western farmers was estimated at about only 110 million dollars (the smallest since 1933) as against an income of some 240 million dollars from the large 1940 crop. This shrinkage of around 130 million dollars in wheat sales income was only partially offset by government assistance payments aggregating about 60 million dollars (under the three categories of wheat acreage reduction bonuses, Prairie Farm Assistance and Prairie Farm Income payments), and by increased farm revenue from marketing or utilization of coarse grains from diverted acreage. In the meantime grain growers were experiencing the pressure of rising operating and living costs, and were highly conscious of the disparity between

wheat prices in Canada and the United States, as well as between the impact of the War upon their own income and that of industrial workers in Canada. Early in February 1942 Ottawa was "invaded" by a delegation of over 400 Western farmers bearing a "prairie petition of rights," with 185,000 signatures, in which the "parity" principle was invoked, and the government urged to establish an initial Wheat Board price of not less than \$1.00 for the 1942 wheat crop, subject to equitable delivery quotas.

The government which had put its general price-freezing program into effect the previous December was reluctant to raise the Wheat Board's basic price, lest it result in breaking through the price ceilings on flour and bread, and at first favored the alternative of a 20-cent federal bonus. The widening spread between Canadian and United States wheat prices,<sup>17</sup> as well as fiscal considerations, contributed however to a compromise with the prairie farmers' demand, and on March 9 the government announced that for the 1942 wheat crop the Wheat Board's basic price would be advanced to 90 cents, with total deliveries from Western Canada limited to 280 million bushels (as against 223 million for the 1940 crop). Prairie Farm Income bonuses, as paid in 1941-42, would be discontinued, but the 80-cent price limitation was removed with respect to "emergency" payments in low yield areas under the Prairie Farm Assistance Act.

With a view to stimulating greater production of feed grains and flaxseed, several important changes were made in the 1942 program. Wheat acreage reduction bonuses were to be continued, but instead of the \$4.00 an acre bonus on increased summerfallow acreage, a uniform bonus of \$2.00 an acre would be paid on acreage diverted to summerfallow or seeded to grass, coarse grains, flaxseed, corn or peas. As a further inducement, minimum guaranteed basic prices were announced of 60 cents for barley, 45 cents for oats, and a fixed price of \$2.25 for flaxseed (as Canada's most feasible domestic source of vegetable oil). This measure served to remove the anomaly evident in the preceding year, of maintaining a minimum price only for the crop which it was desired to reduce, while leaving unsupported the prices of the grains for which war needs called for a heavy expansion in output.

The government's 1942 grain program was announced well in advance of seeding time in the Prairie Provinces, and under the

<sup>17</sup> Through February the spread between May futures on the Chicago and Winnipeg markets had averaged 58 cents (U.S.)

more specific and consistent inducements offered, the response of Western farmers has been gratifying. In July the Agricultural Branch of the Dominion Bureau of Statistics reported that the acreage sown to wheat in the Prairie Provinces had been reduced to 20,653,000 acres, the smallest since 1925, and 28 per cent below that of 1940. On the other hand the following percentage increases over 1941 seeded acreages for other grains were indicated: oats 18, barley 35.5, spring rye 39.5, fall rye 46.6, flaxseed 49.3.

Despite the reduced wheat acreage, unusually favorable growing conditions indicate that this year's Canadian wheat crop will turn out to be about as large as those of 1939 and 1940—exceeding half a billion bushels. With the carryover of Canadian wheat in North America on July 31 standing at 424 million bushels, as reported by the Dominion Bureau of Statistics, an acute storage problem is again in prospect. With 1942 wheat deliveries to the Wheat Board limited to 280 million bushels from Western Canada, prairie farmers will have to depend mainly on feeding outlets for the disposal of their over-quota wheat. At the Board's basic price of 90 cents, however, Western wheat growers will derive from their 1942 crop a prospective income of about 235 million dollars (including farm storage allowances and acreage diversion bonuses.) This would approximate income from the pre-quota 1940 crop, and would substantially exceed the average wheat income of 166 million dollars for the four preceding crop years 1936-39.<sup>18</sup> As compared, however, to prairie farm wheat revenues averaging 380 million dollars for the calendar years 1926-29, it represents income stabilization reflecting the changed world wheat situation.

*War-time Changes in the Agricultural Economy of Western Canada.*

—While the present war has imposed new hardships on the wheat growers of Western Canada, it has on the other hand opened up important alternative opportunities which are tending to reduce the dependence of the economy of the Prairie Provinces upon the uncontrollable fluctuations in wheat yields, prices and export outlets. In meeting the huge overseas demand for animal products arising out of Canada's commitments to the British Food Ministry,<sup>19</sup> western farmers have been participating—both directly by

<sup>18</sup> As estimated in *Monthly Review* of Bank of Nova Scotia, March 1942.

<sup>19</sup> Current contracts between the Dominion government and the British Food Ministry call for the shipment of 600 million pounds of bacon during the year ending October 1 (compared to exports of 171 million pounds in the corresponding period of 1937-38); of 125 million pounds of cheese in the year ending March 31, 1943 (50 million pounds more than Canada supplied in the calendar year 1938); of 668,000 cases of evaporated milk by the end of next March; while exports of eggs

producing and feeding greatly increased numbers of livestock on prairie farms, and indirectly by the heavy expansion in federally subsidized shipments of Western feed grains to Eastern Canada.

One of the notable agricultural developments of the War has been the expansion of hog production in Western Canada, especially in Alberta. Estimated hog slaughtering in the Dominion of 6.6 million head in the 1941-42 marketing year are more than double those of 1938-39; but whereas in the pre-war year the proportion slaughtered in the Prairie Provinces was 40 per cent, that region is officially credited with 60 per cent in the current year.<sup>20</sup> Alberta, which expanded its hog production by 160 per cent between 1938 and 1941, is in fact closely challenging the position of Ontario as the premier hog producing province of the Dominion. In that foothills province, with its abundant supplies of barley and feed wheat, it is expected that farm cash income from the sale of hogs may exceed that from wheat in 1942. For the Prairie Provinces as a region the war-time shift in the pattern of agricultural marketing may be epitomized by noting that, whereas during the thirties wheat accounted for between 47 and 66 per cent of total cash income from the sale of farm products, it represented only 20 per cent in the first quarter of 1942. The subsidized shift from wheat to coarse grains has been more marked in Manitoba and in the park belt of northern Saskatchewan and Alberta than in the semi-arid area of the two latter provinces where wheat has shown greater drought resisting capacity than other grains, and where diversion more appropriately takes the form of increased summerfallowing and re-grassing.

Although continuation of opportunities for profitable marketing of the maximum output of animal products cannot be expected after the War, the trend towards greater diversification in the agriculture of the prairie region, which War demand and government policy have accelerated, is likely to persist as a pattern. This prospect indeed is regarded with no little apprehension by the farmers of Eastern Canada.

### *III. Some Comparisons Between Canadian and United States Wheat Policies*

The foregoing review of Canadian wheat policies and programs

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(mostly in frozen or dried form) in 1942 are expected to reach a volume 50 times greater than that shipped to Britain from Canada in 1939.

<sup>20</sup> Current Review of Agricultural Conditions in Canada, Ottawa, July 1942.

through the thirties and the war years inevitably suggest comparison with those pursued contemporaneously in the United States. Every year since 1928 has been an "emergency year" for the wheat industries of both countries under the unprecedented sequence of adverse international conditions, with the persistent surplus problem only temporarily alleviated by drought seasons, themselves inducing new aggravations. Under these uncontrollable circumstances government intervention on behalf of wheat producers has been an inescapable national responsibility. In Canada where the wheat industry has occupied a much more important role, relatively, in the entire national economy than in the United States, it has been the predominant subject of federal agricultural legislation and assistance, whereas in this country wheat programs have been geared into the general structure and mechanism of national agricultural adjustment legislation and administration. While this has contributed perhaps to a greater degree of flexibility and adaptability in Canadian wheat measures, it has tended to assume a regional bias, and to be more concerned with relief than with basic adjustment—at least up to 1941.

*Price Policies.*—The most apparent contrast between Canadian and United States wheat policies is probably to be found in the price level for wheat which each has sought to maintain and the devices employed to that end. In this country purchasing power parity price has been the consecrated national formula in terms of which price objectives, loan values and bonus payments have been shaped. In Canada a more realistic course has been pursued, with only incidental regard to the relationship between the price of wheat and the prices of other commodities. The minimum wheat price levels which the Dominion government has sought to maintain from year to year—whether through open market stabilization operations or through Wheat Board delivery terms—has represented a compromise between considerations of the international competitive situation for wheat, prospective carryovers, Treasury contingent liabilities, and of a price that would enable wheat producers "to get by on." Both countries have resorted to "two-price" systems. In Canada, however, Winnipeg prices have been generally maintained at levels based on "export parity" rather than on "purchasing power parity," and the Wheat Board was able to dispose of the old "stabilization holdings" in 1936-37 at a net profit of 950 million dollars. Canada thus managed to maintain its position as the world's leading wheat exporter throughout the pre-war dec-

ade (except in 1934-35), at a minimum of direct public cost. In the case of the United States, its limited export sales of wheat and flour during this period were generally possible only through direct export bounties, foreign credits, or at losses to the Commodity Credit Corporation.

During the present war Canada has been in the favored position of supplying the great bulk of the wheat and flour import requirements of Britain as the only important remaining foreign outlet. At the repeated requests of the British government Canada has kept open the Winnipeg futures market, and up to June 1940 the Cereals Import Branch of the British Food Ministry made its purchases there in the ordinary way. Since then it has preferred to make direct contracts with the Canadian Wheat Board. While the prices at which these sales have been made have not been disclosed, it was stated in Parliament by the Minister of Agriculture on more than one occasion that they were made "at prices considerably above the market." Since current shipments of wheat and flour from North America to Britain are being financed on this side—through U. S. Lend-Lease and through Canada's recent billion dollar "gift" and \$700 million interest-free loan to the Mother Country—the prices at which these transactions are recorded are largely a matter of Treasury accounting to the governments concerned, and of nationally determined returns to be paid to producers in the supplying countries.

The basic difference between contemporary wheat price systems in the United States and Canada is to be found in the statutory conditions under which the Commodity Credit Corporation and the Canadian Wheat Board respectively operate. The former, under the terms of the Bankhead-Fulmer Amendment of May 1941, is required to maintain loan values for wheat at 85 per cent of parity price (in itself a moving index of inflation). This establishes a fairly effective floor for wheat prices, with a ceiling that, under the agricultural reservations of the Emergency Price Control Act of last January, may not be set below 110 per cent of parity. Within this range market forces and the supply of "free wheat," govern the fluctuations of futures prices.<sup>21</sup>

In Canada the Wheat Board, since 1935, has also functioned as a governmental agency serving to ensure minimum prices for pro-

<sup>21</sup> The widening spread between Chicago and Winnipeg futures from mid-February to July 1941 was almost entirely in anticipation and reflection of the mandatory advances in Commodity Credit Corporation wheat loan values from 81 cents to \$1.15. See Food Research Institute, *Wheat Studies*, Dec. 1941, pp. 140-146.

ducers, while leaving them free to sell on the open market when the latter offered a more attractive alternative. As brought out, however, in the preceding discussion, the successive price floors which it has established have been adjusted to the realities and prospects of each crop year, instead of to a politically determined legislative formula. The Wheat Board, being a marketing agency and not a loan agency, automatically acquires title to all wheat delivered to it,<sup>22</sup> instead of merely unredeemed wheat as in the case of the Commodity Credit Corporation, and in the last two years it has been almost the sole recipient of primary deliveries. Moreover, in the sale of its holdings the Wheat Board has not been hampered in the exercise of its discretion as to timing, volume and price, by such legislative restrictions as the feed wheat compromise of the insistent Congressional attempt to prohibit Commodity Credit Corporation sales of wheat below parity price.

With Chicago wheat prices throughout the 1941-42 crop year ranging between 40 and 60 cents above Winnipeg prices,<sup>23</sup> an extensive movement of Canadian wheat into this country was prevented only by Presidential proclamation of an annual import quota of 800,000 bushels of wheat for human consumption, following passage of the Bankhead-Fulmer Amendment. In general it may be said that in the 1941-42 year wheat prices in the United States were much higher than were warranted either by the supply situation or by the "necessary costs" of producing all the wheat needed. In Canada on the other hand the Wheat Board basic price of 70 cents (limited to a quota of 230 million bushels) was too low to sustain wheat producers (even with the addition of government bonuses), and indeed lower than was necessary to ensure sales of Canadian wheat in Britain where competitive price considerations were no longer determinative under war conditions. The advance of the Wheat Board price to 90 cents for the 1942 crop year, and recent subsidence of U. S. wheat prices in the face of the greatest domestic supply in the nation's history, have reciprocally contributed towards narrowing the price disparities between the two countries, despite the fact that the Commodity Credit Corporation average loan rate to farmers for 1942 wheat has been raised from 98 cents to \$1.14. In both countries the minimum price guaranteed to producers is qualitatively limited in its application—in Canada by

<sup>22</sup> While the participation certificate feature entitles producers to share in any "profits" that may be realized from the Board's operations, such pool distribution has not so far been possible.

<sup>23</sup> Converted to U.S. cents at official exchange rate.

the Wheat Board's total delivery quota of 280 million bushels for 1942-43, and in this country by the conditioning of Commodity Credit Corporation loan values on the referendum acceptance by producers of individual marketing quotas reinforced by penalty taxes.<sup>24</sup>

*Bonuses to Producers*—In both the United States and in Canada (since 1939) wheat prices, however controlled nationally, have been supplemented by bonus payments to producers. In this country conservation and wheat parity payments have indeed been restricted to "cooperators" in Agricultural Adjustment programs, but they have been received by wheat producers even in years when no reduction in wheat acreage was called for. In Canada bonus payments have been confined to farmers in the wheat surplus producing region of the Prairie Provinces. The wheat acreage reduction bonuses initiated in 1941 have been allowed only where proof is established of actual diversion to summer fallow or seeding of coarse grains or grass. The Prairie Farm Assistance "emergency" payments have been conditioned (at least up to August 1942) on the persistence of Winnipeg price below 80 cents, and limited in their distribution to areas having average yields of not more than 12 bushels in a given season. The Prairie Farm Income bonuses of 1941-42 have been discontinued with the advance in the Wheat Board price for 1942-43. Except in the case of acreage diversion bonuses, maximum limits on the amount payable to any individual farm have been established on all other forms of federal assistance to prairie farmers. In general the observation appears warranted that in the United States Agricultural Adjustment Administration payments to "cooperating" wheat producers (at least since 1935) have been outright bonuses geared to parity goals and distributed on a nation-wide basis; whereas in Canada they have not only been regionally limited, but have also been conditioned on actual diversion performance, or on the occurrence of low yields in local areas.

<sup>24</sup> Since this paper was written the Dominion government, through the Wartime Prices and Trade Board, has taken steps to prevent the higher Wheat Board prices to producers for the 1942 crop being reflected in higher costs to consumers, by arranging for the sale of wheat to millers at a basic price of 77½ cents, with the government absorbing the difference. At the same time costs to buyers of feed wheat are being maintained at the July 1942 level by providing for a "drawback" of 8 cents a bushel. This application of the price subsidy device of compensating producers without increasing food costs to consumers has its suggestive implications with reference to the current conflict between parity price stabilization and cost of living stabilization in this country.

*Control of Supply*—Although Canada was eight years later than this country in attempting direct control of wheat supply at the source, the measures which she has applied in 1941 and 1942 have been decidedly more drastic than those in effect here in the same years. The limitation of the Wheat Board's basic price of 70 cents to total deliveries of only 223 million bushels from Western Canada in the 1941 crop year called for a 35 per cent reduction of the expanded 1940 wheat acreage; whereas in this country the "national wheat allotment" for 1941 was continued at the same level as in the preceding year (62 million acres). Although for the 1942 and 1943 crop years the national allotment has been set at the minimum permitted under the law (55 million acres), this has been accompanied by very substantial advances in Commodity Credit Corporation wheat loan values. United States wartime wheat control measures have so far been governed by the basic provisions relating to wheat in the fundamental Agricultural Adjustment Act of 1938, embodying the Ever Normal Granary principle. These are nationwide in their application and prescribe a minimum below which the national wheat acreage allotment may not be reduced. In Canada the wheat control programs of 1941 and 1942 have been a matter of special emergency legislation and have been limited in their application to the surplus prairie region.

Both countries are employing compulsory wheat marketing quota systems, although in Canada there is no provision for a penalty tax on over-quota marketing, since under the circumstances there is only one agency to which prairie farmers' wheat is being delivered. While the conversion of national or regional marketing quotas into individual farm allotments involves formidable administrative complications, the principle is essentially equitable, and in general has been willingly accepted by farmers in both countries. In the United States wheat marketing quotas become operative only after a referendum of producers concerned, while in Canada they have been imposed by special legislation embodying government policy. A more significant difference lies in the fact that acceptance of wheat marketing quotas by wheat producers in this country is the condition of access to Commodity Credit Corporation non-recourse loans at a scale of values which, in terms of income, more than offsets the quantitative restriction imposed, and hence does not of itself exert economic pressure in the direction of curtailment of wheat production. In Canada, on the other hand, the relatively low level

at which guaranteed wheat prices have been established tends to reinforce the impact of delivery quota restrictions and acreage reduction premiums towards inducing diversion.

In respect to the possibilities of reducing excessive wheat stocks through increased utilization as feed, greater results, relatively, are being realized in Canada, where the Wheat Board is under no legislative restriction as to the amount and price at which it may dispose of its stocks for such purpose,<sup>25</sup> where the federal government is absorbing the freight charges on feed wheat shipped from Western to Eastern Canada; and where the damming back on prairie farms of huge quantities of undeliverable wheat exerts a potent inducement to convert it into livestock products at prevailing prices.

*The Problem of Carryovers and Joint Action*—Despite the various wheat production control measures attempted in the United States and Canada, the war-circumscribed opportunities for export movement, and the succession of above-average yields in both countries in the last three crop years (except in Western Canada in 1941) have resulted in the accumulation of unprecedented wheat supplies in North America. Canada carries 424 million bushels of old wheat into a record 1942 wheat harvest of 615 million bushels. The United States brings to its 1942 harvest of over 900 million bushels (representing a record acreage yield) a carryover of 620 million bushels. These prospective North American wheat supplies of approximately 250 million bushels represent about three times the normal domestic disappearance.

In both countries these surplus stocks (apart from what is being dammed back on farms) are being treated as "war reserves," and the responsibility for carrying them has been assumed by the governments concerned, through the Commodity Credit Corporation and Canadian Wheat Board respectively. The administration and disposal of these reserve stocks during and after the war obviously calls for close coordination of policy and action between the two governments. It is a matter of gratification, therefore, that they have been participating, along with representatives of Argentina, Australia and the United Kingdom in a revived series of inter-

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<sup>25</sup> In the United States current Congressional limitations on the sale of government-held wheat for feed purposes to 125 million bushels at prices not less than 85 per cent of the parity price for corn is definitely restrictive of wheat consumption in the form of feed.

national wheat meetings at Washington. The Memorandum of Agreement which became effective on June 27 provided for the immediate establishment of a pool of 100 million bushels of wheat for intergovernmental relief distribution in war-stricken areas, to which the United States made commitments of 50 million bushels, and Canada and Great Britain 25 million each. The four exporting countries subscribing to the agreement undertook to maintain or adopt positive measures to control production with the object of minimizing the accumulation of excessive stocks during the war. Of wider and longer-run significance is the provision for the convening by the United States, when the time is deemed propitious, of "all nations having a substantial interest in wheat whether as producers or consumers," and for consideration at such conference of a draft international wheat convention prepared by the Washington meeting. In the meantime a continuously functioning International Wheat Council has been established at Washington composed of representatives of the five countries subscribing to the Agreement.

Although the accomplishments during the thirties under the London international wheat agreement of 1933 and the labors of the continuing International Wheat Advisory Committee proved ineffective in a nationalistic world preparing for or fearing war, yet that very experience demonstrated the imperative need for intergovernmental action in respect to wheat which no country could export without some form of subsidy. The evolution of national emergency and wartime controls over the production, price and disposition of wheat has come to be accepted generally by both producers and the grain trade, and it is being increasingly recognized that the vast postwar problem of moving the glutted wheat stocks of the overseas exporting countries to areas ravaged or isolated by the war can be achieved only by intergovernmental action, as anticipated at the Washington wheat meetings. It is with the United States and Canada that the major responsibility must lie for demonstrating and extending international collaboration, not only in the immediate postwar task of food relief, but also in the rationalization of the world wheat trade in accordance with an internationalized application of the Every Normal Granary principle.

## CROSS-SECTIONAL AND CASE-GROUPING PROCEDURES IN RESEARCH ANALYSIS

LEONARD A. SALTER, JR.

*University of Wisconsin*

IT IS the purpose of this paper to attempt to tie down certain concepts of research method to the everyday tasks of rural social scientists. The points to be dealt with arise, in their ordinary setting, in the determination of a procedure for the analysis of data collected on field schedules.<sup>1</sup> The central thesis is that proper attention to the internal construction of observed cases is a prime requisite of scientific inquiry. The exposition is an elaboration of a statement made in a previous article to the effect that we need to develop techniques which "retain the pattern of attributes within the units of observation."<sup>2</sup> Since our usual means of analysis are particularly weak in this respect, this paper urges the consideration of a mode of procedure which differs basically from our customary routine.

### I

Basic to any decision respecting the ordering of data in any study is the answer to this question: What is the unit of observation? Social inquiry is undertaken to resolve a doubt or confusion that enshrouds some aspect of human behavior. In order to look into the activities of people, the investigator must have an acting unit or a unit of action on which he concentrates his attention, and in rural social science these usually are persons, families, going farms, or transactions. Where field interviews are used, each enumeration schedule usually represents a unit of observation, and each item on the schedule describes an attribute of the unit of observation. The important point in this is that these attributes are not important in themselves, but only insofar as their combination within an action unit helps to explain the behavior of it.

Units of observation are always something to be treated with extreme care, especially in social science. Whatever the scientist may do in wielding the scalpel to expose the behavior of social units, he

<sup>1</sup> This discussion applies especially and directly to land economics, farm management, and farm population studies as they are commonly designated. In such branches as marketing and prices, the issues are not so close to the surface and should accordingly receive separate treatment.

<sup>2</sup> The Content of Land Economics and Research Methods Adapted to Its Needs, *JOURNAL OF FARM ECONOMICS*, Vol. XXII, Feb., 1942.

must not destroy their functional systems, which consist of the relevant attributes as they actually are patterned within each observed case. If his research procedures involve the manipulation of attributes in such a way as to lose sight of the arrangement of attributes within each unit of observation, the researcher will be ruining his opportunity to observe the very thing he seeks to understand. This danger constitutes the greatest weakness of the predominant techniques for arranging evidence in rural social science research.

The most common procedure used in rural social studies is to summarize a mass of field schedules by a cross-sectional process of describing first one attribute and then another, or perhaps a couple of attributes at a time, as these are found among all the schedules or among large *a priori* groups of schedules. The most vulnerable aspect of this cross-sectional procedure is that it deflects the line of perception of the research worker away from the case or action unit and tends to make it impossible for him or his audience to see the pattern of behavior which he is supposed to be revealing.

The greatest element of error that occurs in statistical descriptions of the "average" case is not in the use of arithmetic means without a description of the dispersion about the mean. Rather it is the chance of unwarranted inference as to the actual combination of the various attributes within the unit of observation. For if the central tendency is less than perfect for any relevant attribute, the "average" description cannot safely be interpreted as representing the actual pattern of attributes within the cases. Similarly, the possibility of false combination of attributes exists when they are described in terms of frequencies. Thus, if a cross-sectional tabulation of records reveals that 20 per cent have a certain characteristic, that 20 per cent have another, and so on, the reader will be tantalized with the following question but will not have any clue as to its answer: Is it the same 20 per cent of the cases that have each of these attributes?

The deficiency which is so quickly admitted in these average and frequency descriptions of attributes seems to go unrecognized with respect to whole research procedures simply because the percentages vary, because the attributes are numerous, or because a lengthy treatment is accorded each attribute. It can be observed in the multitude of our research publications in which the structure of the report consists of successive summaries of farm expenses,

farm earnings, non-farm income, age of operator, family composition, type of farm, nationality, and other attributes of the observed cases, or in which the various sections of the report treat of the quantitative relations between couples of the attributes. The prime deficiency of these reports is that the construction of the relevant attributes within the action units is lost and cannot be reconstituted.

These same difficulties arise with even greater force in the handling of data which have a time dimension. If a number of persons, over the period of their existence, live through a perfectly standardized series of experiences, a cross-section of the attributes of these cases at a given time would appear to present a dispersed picture simply because each actor may not have started at the same instant of time. If the length of each segment of experience varies for relatively inconsequential reasons while the basic pattern of experiences remains perfect, a cross-sectional tabulation of the attributes of the cases will show a more heterogeneous appearance than in the previous case, and the underlying uniformity of the pattern of sequential events will more certainly be obscured. Since these techniques fail to expose a single consistent sequence of events, the actual functioning of the units of observation is sure to be destroyed if there really are two or more patterns of attributes.

What can happen if data that are inherently historical are interpreted without preserving the time pattern of attributes can be illustrated in soil erosion and land tenure research. If a farm is severely eroded, the condition obviously is the result of the soil management that has been practiced for some years previously. Just because a cross-sectional study of attributes shows that present tenant farms are more seriously eroded than owner-operated farms, we cannot safely conclude that tenancy is conducive to erosion. The assertion can be grounded only if it has been shown that the erosion has been going on all the while that tenants have been on the farm. To do this, it is necessary to handle the units of observation so that the sequence of events as they occurred on each farm is preserved intact. If this principle were followed, the data might reveal, for example, that the farms had eroded under owner operation and had been rented after erosion reached a certain state, or that heavily encumbered owners had mined their lands in unsuccessful attempts to prevent foreclosures to institutional lenders who had since leased the farms to tenants.

## II

Some current confusion regarding our research work appears to be engendered by insufficient recognition of the tendency for cross-sectional procedures to hide the functional unity of the relevant attributes of the observed cases, as a few illustrations will indicate.

The simple average, like the weather, is something that we talk about a great deal but about which we do little; for despite our increasing attention to advanced statistics, the calculation of simple averages remains as our chief research technique. Perhaps one reason for this situation is that the critics of the average have generally been arguing for merely the use of refined techniques for describing central tendencies more accurately. But the unfortunate trouble is that these aids do little directly to advance the gaining of insight. The difficulty is not that the devices are not useful for the purposes for which they were constructed, for indeed they are. Lying deeper is the difficulty that the collected data are lined up in the wrong way to begin with. They are looked at along a cross-sectional sighting of the attributes, whereas the insight must be found within the functional, living pattern of attributes of the units of observation. Thus the possible dilemma of advanced technique and retarded insight.

Agricultural economists are sometimes criticized for depending too greatly on the census even though they themselves are often disappointed, to say the least, with what census data can reveal. Since the census is a counting device and not a research inquiry, it is no criticism (but it is important) to point out that census data are, above all, cross-sectional data, and therefore it is only very rarely that any internal relations can be safely inferred from the census. Take, for example, the question of disadvantaged farming. Although one can obtain the number of farms of less than a certain acreage, the number of tenants, the number of mortgaged owners, the number of farms producing less than a certain value of products, and the number with certain amounts of off-farm work, what needs to be known particularly is how these attributes are in fact joined within the farms. Without this knowledge respecting the form of the individual social units, great errors can result from reliance upon the cross-sectional figures.

Numerous writers in recent years have insisted that our social research work must not forget "people." This sound advice can have value in the improvement of our research only if it means that

the work must be conducted in such a manner as to preserve and expose and not to destroy and bury the living pattern of the attributes of human activities. To remember "people" is to remember nothing if it only means that field schedules should be longer to provide for a count of window screens or attendance at meetings of the Ladies' Auxiliary, and if the new items plus the old ones are still to be analyzed with emphasis on cross-sectional attribute summaries. The reminder, one might say the basic axiom, that it is people who do things needs to be stressed; but its real import is that something new must be added to our concept of what constitutes proper analytical techniques.

Another confusion has concerned the case and mass-statistical "methods" of social research. General opinion with respect to the choice between these procedures has been expressed by Alfred Marshall who said:

It may be noted that the (case) method of le Play's monumental *Les Ouvriers Europeens* is the *intensive* study of all the details of the domestic life of a few carefully chosen families. To work it well requires a rare combination of judgment in selecting cases, and of insight and sympathy in interpreting them. At its best it is the best of all: but in ordinary hands it is likely to suggest more untrustworthy general conclusions, than those obtained by the *extensive* method of collecting rapidly very numerous observations, reducing them as far as possible to statistical form, and obtaining broad averages in which inaccuracies and idiosyncrasies may be trusted to counteract one another to some extent.<sup>3</sup>

This statement has many dangerous loose implications, but for our purposes it must be noted that while Marshall's choice appears to be made with practical common sense, it is made without recognition of the shift it involves in the perception of social data. Further, in view of the high praise accorded the intensive case technique, it is surprising that more stress should not have been placed upon some intermediate means which would preserve the values inherent in that technique and yet avoid its main difficulties.

In respect to correlation analyses, it might be pointed out that the peculiar or exceptional points on a scatter diagram might be used to segregate a few cases which, if studied individually, might be more helpful in revealing the key to the problem under study than the goodness of fit of the bulk of the data. In fact, it is not inconceivable that the study of such cases might be the only way to gain insight into the real elements of the problem for which the data were taken.

<sup>3</sup> Principles of Economics, London, 8th Ed., p. 116.

Cross-sectional research with its emphasis on attributes rather than on cases also adds to the elusiveness of the causation issue. The elementary principle that high correlation coefficients give no assurance of causal connections is too often disregarded; but even where it is remembered, the investigator may only leave the drawing of the causal conclusion to his readers, as though they were in a better position than he to understand the fundamentals of the problem. As research workers we may thus protect ourselves, but we are not protecting society by hiding behind a metaphysical Gordian knot of causation theories. Nor can we say that it makes no difference which is cause and which is effect, as though the chicken-or-the-egg proverb were relevant to questions of public policy. It makes *all* the difference if society is to put the results of social inquiry to their final test in purposive action.

Another suggested solution is that conceptual theories must be constructed or that "logical reasoning" must be engaged in and the results of such thinking must check with the results of cross-sectional empirical research. While such correspondence is preferable to the use of only one of these approaches alone, the matter is not thus settled for the conceptual reasoning may join with the cross-sectional facts in "point correspondence," but still not be in conjugate functional correspondence. A procedure that preserves the functional unity of the cases under study will help to fill the need for empirical procedures that are of such nature that the conceptual hypotheses and the data can be conjointly revised during the progress of the research until they come to functional conjugate correspondence.

The point again is that the results of our research need to be *grounded* by some analysis that preserves the pattern of attributes within the units of observation, for it is inherent in social inquiry that we seek conclusions which have relevance to the functional structure of such units. All cross-sectional analyses are basically but attempts to arrive at an understanding of human activities, which at once are sequential and are conducted within action units. Therefore, while our fine structure of cross-sectional techniques have important roles to perform they still will need to be grounded by some procedure which reveals the actual combination of the various attributes as they do exist within the cases studied; and in many instances this goal can be reached more directly and with greater insight than by the use of customary procedures.

These difficulties in research methodology have also been re-

flected in other fields by various demands for changes in approach. Kocler's emphasis on the "Gestalt" and Thurston's experiments with "multiple-factor analysis" in psychology, the demand of Lynd and others for a "cultural" approach in sociology and anthropology, Hogben's analysis of the nature-nurture controversy in genetics, Sorokin's suggestion for "logico-meaningful" research, and Landis' emphasis on the "social process"—all of these in a sense represent a striving for the preservation of meaningful patterns of action attributes. Few, if any of these expositions, however, seem to have practical direct applicability to the workaday tasks of the agricultural economist or rural sociologist who characteristically deals with data from field interviews.

Perhaps the most practical development of a technique for preserving patterns of attributes within cases has been developed by Dr. Walter A. Shewhart with respect to the engineering problem of quality control. Dr. Shewhart distinguishes sharply between what he calls "classical statistical theory" in which the experimentalist "must, as it were, keep blindfolded" and "statistical control theory" in which he "must keep his eyes very much open." With respect to the latter, Shewhart stresses the need for maintaining intact the pattern of attributes within the observed cases, emphasizing "how important it is not to group data together so as to destroy all possibility of ordering them in terms of the conditions under which they were taken." "Since all of the information about assignable causes is lost just as soon as we group the data together in the form of a frequency distribution . . . we see how very important it is to pay attention to order in taking and recording data."<sup>4</sup>

Even more recently, Deming has set up a classification of the problems of statistical inference<sup>5</sup> which differentiates between "Type A problems" which are of a cross-sectional nature (Shewhart's classical statistical theory) and "Type B Problems" in which the pattern of attributes must be preserved (Shewhart's statistical control theory). A review of Deming's description of these "problem" types reveals that the basic problems of social science inquiry

<sup>4</sup> Contribution of Statistics to the Science of Engineering, Fluid Mechanics and Statistical Methods in Engineering, University of Pennsylvania Press, Philadelphia, 1941. See also, Contribution of Statistics to the Development and Use of Purchasing Specification and Standards of Quality by Captain L. E. Simon in the same volume. (My thanks to Professor Churchill Eisenhart of the University of Wisconsin Agricultural Statistical Service and Department of Mathematics for the reference.)

<sup>5</sup> On a Classification of the Problems of Statistical Inference, *Journal of the American Statistical Association*, June 1942.

are of his Type B. For this type of problem, Deming mentions a search for "repeated patterns in subseries," and this corresponds to the case-grouping procedure which is here suggested for handling field schedules in rural social science inquiry.

### III

When in the decade of 1920 the production of refined cross-sectional techniques, calculating machines, and financial appropriations combined to flow into flood stage and rural social science moved into high gear, we adopted a nineteenth century research philosophy which seemed to afford the logical footing for research procedures in physical science and which also served to strengthen the use of cross-sectional procedures in social science work. It is not therefore easy to refer to available publications in which primary stress has been placed upon the preservation of internal patterns of case attributes.<sup>6</sup> Over a period of eight years, the writer has been experimenting in a small way with this procedural requirement for a variety of research problems and has attempted to analyze the weaknesses and strengths of a great number of the rural social science studies which have been published during the last thirty years. It is out of these experiments and investigations that the present suggestions have grown.

It is suggested that many of the deficiencies of cross-sectional research can be overcome by a case-grouping procedure which involves the application of a form of case study technique to a large number of observations. Referring back to the quotation from Marshall, note that he refers to the case study as one in which intensive study is made "of all the details" of the unit of observation. This characterization represents some exaggeration of any enlightened case study technique, for under such a concept there would be no end to the details to be examined. Yet perhaps the general lack of popularity of the case study may in part be traced to just that concept. For unless there is some really reasonable limit to the spinning of the detailed description, and some high-lighting of certain details as compared to others, one would certainly have a basis for doubting that the researcher had a problem in mind and an hypothesis to test. Without these, it is not scientific inquiry.

<sup>6</sup> Some partially exceptional instances among land economics studies are singled out in the article referred to in footnote two. In farm management and rural sociology the exceptional studies consist of a few case studies like R. L. Mighell's Massachusetts Bulletin 275.

On the other hand, if in turning from the single case study to a type of research which increases the number of units of observation we cut down on the number of attributes we record, does not this step represent a sufficient simplification of our task? Must we also turn to the wholesale summary of the attributes? Unless the sole criterion for research effort is mechanical simplicity, there seems to be no valid reason for asking for both a reduction in the number of attributes *and* a mass method of treating them, in return for increasing the number of cases. Certainly no one would insist that such simplicity should be purchased at the price of understanding and insight.

Even in the study of a single case, the investigator selects for first observation those attributes which, on the basis of prior familiarity with some related problem or some other attack on the same problem, appear to give promise of proving particularly relevant to the issue under study. In the use of a larger number of cases, this question of determining which attributes should be looked into first becomes even more important. In making the decision, the analyst, guided by his hypothesis, selects a number of attributes which seem to have possible relevance. The requirements of this phase of the work should be the same whether case-grouping or a cross-sectional procedure is expected to be used. The essential difference in a case-grouping type of analysis is that during both the enumeration, and the handling of the data later, the investigator must constantly keep his primary line of interest along the composition of attributes relative to each case rather than at the foot of the tabulation sheet.

In the interviewing, it becomes necessary for each enumerator to have the general aspects and a specific statement of the problem and the hypothesis well in mind. As he takes the information he should continually be asking himself whether the data he is noting are pertinent to this particular problem as revealed in this particular case. In order to exercise this function *the enumerator must see his job not merely in the routine of completing all the answer boxes on the schedule, but rather in getting the information from each case which indicates how the central problem is reflected in each unit of observation as it is.* For if the operation of the problem is not apparent in each schedule, no amount of any kind of juggling of a mass of inadequate schedules can reveal the problem later on. For this reason, the research leader must be indeed close in his concept of the problem to everyone entrusted with schedule-taking. Else he may better

do with fewer units of observation even if he actually has to take every last schedule himself.

In the office, again the researcher must actually handle the schedules himself or retain a very limited number of assistants who are thoroughly familiar with the problem and the hypothesis of the study. Just as in the matter of making the interviews, so again in the handling of the data collected, the continual question is: How is the problem represented in each case? So important is this attitude during the whole process of ordering the data, one is almost inclined to wish for a moratorium on punch cards, tabulating machines, and large clerical staffs among agricultural economics research agencies for none of these is capable of generating the insight which must be based upon the internal pattern of attributes as they occur within each of the surveyed cases.

The process in handling the units of observation, or cases, consists in a trial and error grouping, subgrouping, and regrouping of the cases, first by simple patterns of a few attributes which are believed to be relevant and then by additional attributes which rise up as relevant. Each case will therefore be continually expanding as to the number of attributes which characterize it and which are uniform among the cases with which it is grouped. At the same time the number of recognized subpatterns will also tend to increase. There are no set rules and regulations for this process except the fundamental one of maintaining a scientific attitude: the analyst must have a higher stake in the preservation of his intellectual honesty than in the particular direction his conclusions take; he must see his hypotheses only as possible methods of resolution which must be progressively modified as the evidence suggests.

Because of the tendency for the subgroups to multiply as additional attributes are taken into account, we may note a few suggestive aids for seeking uniformity among apparent diversity.

While it is always desirable for the researcher to let go of attributes which turn out to have no real relevance to his specific problem, this rule becomes a first imperative in the case-grouping procedure.

In testing a certain phase of an hypothesis, one item may prove useful for a part of the schedules and a different item for other schedules. In such a case, uniformity among certain cases for both attributes might not be necessary to justify keeping them grouped together. Thus, for example, in a cut-over area in checking as to

settlers' interest in establishing farms, in some cases a size of tract of, say, less than one acre may be sufficient; whereas on larger tracts, the number of acres of cleared land may serve to check the same basic point.

For much of our work, the important attributes are gross. Where the nature of the problem requires only gross measurement, the investigator should act accordingly. Ages and dates, for instance, may be recorded specifically but may need to be reinterpreted in rather broad categories. Similarly, with qualitative information, for example, a list of occupations may appear extremely diverse, yet the underlying analytical point may be the simple one, say, of non-farm work or work associated or not associated with a certain type of industry. In such cases, needless refinement not only consumes valuable energy but it can also lay down a false fog of apparent heterogeneity to cover functional unity. The possibility of this danger is the real justification for the popular quip about "working on the wrong side of the decimal point."

The analysis should begin with a careful reading of a number of the schedules. A first sort of the schedules should be based only on one or a few attributes which are certain to have a direct and important bearing on the way the problem will be reflected in all the units of observation. Then, in any process of subsorting, it is advantageous for the analyst to write out schedule by schedule, and at some length if necessary, the pattern of attributes which seem then likely to be revealing. When diversity within a pattern appears, he should begin to question the attributes causing the diversity as to whether they are major or minor attributes, whether some other attributes may constitute an offset, whether the method of describing the attribute may be obscure, or whether the exceptions can be explained from other data on the schedule. If none of these tests or the last one clarifies the situation, the researcher should then prepare to establish one or more subsidiary groups as he goes on through his major group, or perhaps to reorganize his first sort. This process and the ultimate groupings are controlled by the problem under investigation and the then-stated hypothesis under test. The process will be indeterminable and hopeless only if the number of attributes strategic to the problem are greater than the number of units of observation. It may be noted, however, that from the series of patterns established, it may be possible conceptually to

complete the full possible range of subgroups even though some are not represented in the observations at hand.

Once a set of major and minor patterns of attributes is established which clarifies the largest doubts in the central problem, the analyst then has the job of summarizing subsidiary attribute groupings, explaining exceptional cases, and reconciling other features of the cases within his groups. *His goal is to be able to explain adequately the reflection of the basic problem in each one of his cases.* In social research, something less than this ideal will usually be achieved because of the administrative limitations on the expenses of field work and because certain social facts disappear without hope of being recovered. Under ideal conditions, however, the project would not be considered finished until revisititation in the field or the searching out of some additional facts provided an explanation for even those isolated cases which still could not be corralled within the conclusions of the study.

One doubt that is most certain to be raised is whether these procedures are sufficiently objective. The usual procedure of cross-sectional analysis of attributes has become so pervasive that its techniques have come to be taken as the scientific method, while techniques which require more imagination and ingenuity on the part of the investigator are regarded as unscientific or subjective, or as involving "value" judgments. These distinctions are wholly false, given the fundamental prerequisite of a scientific *attitude*. Every time a research worker sets up a series of class intervals or makes any other decision with respect to the handling of given data, he is making a judgment that that set of intervals or that particular attribute or that other particular analytical operation is pertinent and helpful to the testing of his then-stated hypothesis. Objectivity is a matter of the attitude of the scientist; it is not an inherent component of any given type of technique or operation.

Another possible question about the use of a case-grouping procedure is whether it may not result in "too many" patterns. This feeling is well founded, but it does not constitute an insurmountable objection. The chances are that the person who first tries a case-grouping procedure may become alarmed at the growth of what may appear to be a surprisingly large number of patterns of attributes. Usually, the situation should warn of the need for some of the above-suggested aids or of the possibility that he is including a

number of attributes that are not really relevant. This fear needs to be tempered with the understanding that if his hypothesis is clearly stated and revised, his break-down of patterns needs to continue only to the point where the exposed patterns come into functional conjugate correspondence with the (revised) hypothesis. It is interesting to speculate as to how far the physical and biological sciences could have progressed if their exponents had insisted, in both their conceptual and empirical work, upon assuming an underlying homogeneity of attribute patterns to the extent that social scientists have held to such a concept.

Also, while the number of patterns of attributes which are necessary to ground conclusions may sometimes seem large in relation to the number of observed units, the form of the results may facilitate direct comparisons and may reveal similarities among separate studies more often than is likely to occur when the results take the form of quantified summaries of attributes.

An additional question in the use of case-grouping relates to the difficulty of clearly presenting the results, especially to other analysts who will have a greater interest in seeing the underlying data than the general reader. Both the presentation of the ordered data and the exposition of the inquiry may in a sense seem more cumbersome when a case-grouping procedure is used. To mitigate this difficulty, it becomes necessary to use extreme care and precision in stating the problem and the hypotheses, in defining terms and in consistently adhering to specific meanings. It also calls for careful attention to the method of presentation. It is just as reasonable, however, to expect that since the type of evidence and the nature of the conclusions revealed by case-grouping techniques will be comparatively closer to the living reality of human problems, the results of such research will make relatively fresh and stimulating reading. This possibility also reflects something of a hope for a quickening of interest in the tasks of rural social science research. If some of the ideas presented here seem to call for a return even to seemingly homely labors of research, there may be some compensation for those who will try it in the spirited interest created by research which opens up the ongoing processes of human activity.

It is no great wonder, given the concepts which have prevailed, that rural social research labor has seemed to become mechanical, cut and dried. It has seemed to reveal little that was not known before; to open few new vistas of *oncoming* social problems, to point

to few new suggestions for man to control the events of ordinary experience.

The writer does not intend to claim too much for what is basically a simple reorientation in research procedure, and repeats that the question is by no means an all-or-none choice in any event. The case, however, appears to be strong enough to warrant serious consideration, and it may stand some emphasis in view of the strength of indoctrination that currently accepted procedures hold and in view of the decline of energetic interest in empirical research in some quarters.

## EFFECTS OF AMERICAN-CANADIAN TRADE RECIPROCITY ON AGRICULTURE<sup>1</sup>

RONALD L. MIGHELL

*Bureau of Agricultural Economics*

**T**WO circumstances suggest the need for seriously considering the probable post-war effects on American agriculture of closer economic collaboration between Canada and the United States. The first is the great extension in the area of effective collaboration already brought about by the war and the inevitable carry-over of many wartime commitments. The second circumstance is the strong probability that the economic principles set forth in the Atlantic Charter and subsequent official documents will play a leading role in the peace settlement.

The purpose of this paper is to present a brief reconnaissance analysis of agricultural aspects of the problem and to suggest some of the elements that need further study. For this preliminary analysis it will be convenient to begin by examining the kind of situation that would develop if existing trade barriers other than those really essential to public health and sanitation were eliminated. This would include the substantial removal not only of tariff duties and quotas but also of internal trade barriers that might affect interregional agricultural adjustments.

The purpose of this approach is not to suggest the probability or the wisdom of removing all trade restrictions, but merely to focus attention on some of the basic economic forces that bear upon the production and movements of farm products in and between the two countries. The very real practical and administrative problems related to any transition toward a substantial reduction in existing trade barriers are only briefly mentioned.

Again for convenience and simplicity, the changes in trade relationships with other nations that may develop concurrently with closer collaboration between the United States and Canada are largely passed over. Although this assumes a bilateral collaboration which is not in keeping with traditional American policy, it does have the advantage of shortening the reconnaissance without unduly affecting the major findings.

<sup>1</sup> In the preparation of this paper, the writer has received much assistance from others in the United States Department of Agriculture, especially John L. Stewart of the Office of Foreign Agricultural Relations, and Erling Hole, H. C. Fowler, and William Kling of the Bureau of Agricultural Economics.

Many indirect benefits to agriculture would flow from a more rational realignment of industrial activity on both sides of the border. These benefits are probably considerably more important to American farmers than the direct benefits. But this inquiry is concerned mainly with the more direct results of competition between agricultural commodities and regions.

Certain agricultural products of the two countries compete directly. Wheat is, perhaps, the most important competing product. Some classes of dairy products and fruits and vegetables also compete. Citrus fruits, which are not grown in Canada, are examples of products that do not compete directly, although they may compete indirectly with other fruits. Let us examine the probable adjustments for some of these products separately, commencing with wheat.

### *Wheat*

If the removal of the tariff were accompanied by the removal of the internal price-supporting measures, both of which are effective barriers to international and interregional adjustment, the price of wheat would immediately fall in both countries but the drop would be relatively much greater in the United States. This is because our prices have been supported at much higher levels than the Canadian prices.

The fall in prices would bring about a sharp contraction of wheat acreage in two different types of wheat areas in the United States. First, on the extensive margins of dryland cultivation the returns from wheat growing would be so low as to make it impossible to meet current operating expenses and, from these particular areas, there would be an exodus of population. The land itself would eventually be used for grazing after the lapse of many years had restored the natural grass cover. In certain areas, reorganization of wheat farms into larger scale units would enable part of the production to continue.

The second type of situation in which acreage contraction would occur is found where there are one or more fairly close alternative enterprises, usually involving livestock and feed crops. With lower wheat prices, the alternative systems of farming would become relatively more profitable than wheat and wheat acreage would decline even though returns might still cover operating expenses. These situations are discussed below for the principal wheat areas.

### Hard Red Winter Wheat—Southern Great Plains

More favorable livestock alternatives in the eastern portions of the Southern Great Plains would result in a marked decline in wheat acreage in favor of corn, other feed grains, and hay. Tentative estimates of the Bureau of Agricultural Economics in a study of long-time desirable changes, place the decline in harvested acreage at 7 per cent for the entire State of Kansas and 9 per cent for Oklahoma on the assumption of average 1935-39 price relationships which are more favorable than those assumed here. In the eastern portions of these States still greater declines would occur. With wheat prices at a feed-grain level, corn is a more profitable feed crop in the eastern portion of the Southern Great Plains because it produces more pounds of feed per acre.

Farther west in these States in areas too dry for corn, grain sorghums usually have a yield advantage, but even here winter wheat sometimes produces more feed grain per acre than other small grains and may thus be partially retained in a livestock organization.

### Northern Spring Wheat

After the Hard Red Winter Wheat Region, this is the most important United States wheat region. Natural conditions are closely similar to those in the Canadian area just over the border. It is interesting to note that wheat normally takes up a larger proportion of the crop acreage in northeastern North Dakota than in the adjacent portion of Manitoba. This is the result of the relatively higher wheat prices on the protected United States side. If both sides were placed on the same price basis, cropping systems would become more alike.

Although wheat acreage in the Northern Plains has been more stable since World War I than in the Southern Plains, it has been greatly overexpanded throughout the period. A number of farm management studies in different portions of this region point to the need for a drastic readjustment toward larger sized farm units.<sup>2</sup> Such a readjustment would necessarily be accompanied by a downward revision in wheat acreage. This follows both because of

<sup>2</sup> For example, Neil W. Johnson, Farm Adjustments in Montana—Study of Area VII: Its Past, Present, and Future. Montana Agr. Expt. Sta. Bul. 367. 1939. Lloyd E. Jones, The Sargent County (North Dakota) Farmer Looks Forward in His Adjustment Problems. U. S. Bur. Agr. Econ., February 1941. (Processed.)

increases in the proportion of land in summer fallow and because of increases in live-stock production which would go with the larger scale operating units.

#### Soft Red Winter Wheat Region

Soft red winter wheat is grown in an intermediate area between the Corn and Cotton Belts and extending from the Great Plains to the Atlantic seaboard. It serves mainly as a supplementary cash crop in a variety of mixed farming systems. In most of these areas a decline in wheat prices relative to the prices of competing alternatives would make it unprofitable on the present scale. Acreage responses in this region would be prompt, especially as a long-time downward trend in wheat is already in progress. Only a little more than half as much wheat is grown as was the case 20 years ago.

The increasing urbanization of much of this region and the upward trend in dairying make it reasonably certain that lower wheat prices would greatly accelerate the downward trend. Rotations, the need for a nurse crop and a winter cover crop, and feed grain uses would set a floor under the extent of the decline but it would certainly be substantial. Winter barley is proving to be a superior substitute for winter wheat for these purposes in much of the region and the floor is therefore much lower than was formerly thought.

#### Pacific Northwest

A considerable part of the wheat grown in the Pacific Northwest is a white wheat, less directly competitive with Canadian wheat. Total acreage has been fairly stable since 1920 until the last two or three years. Exports to oriental markets have normally been an important outlet. Farm prices have been very low during the last decade, despite price supporting measures. At times they have been little above feed-grain price levels.

In some areas winter wheat fits well into a livestock system because it yields more feed per acre than any other grain under local conditions. In such areas some expansion might occur under the circumstances assumed.

In the principal wheat area in Washington, however, permanent contraction would follow in the rougher, less productive portions of the extensive dryland area where operating costs could not be met and where alternatives could not be easily introduced.

### Canadian Wheat Adjustments

On the Canadian side, the expected lower prices would also have some effects although, since the drop in prices would be much less, the adjustments would be less drastic. Some contraction would doubtless occur in the extreme northerly areas and in the drier portions of the South where yields are marginal and alternatives are few. In the more moist portions of the Canadian wheat belt, dairying and livestock production would probably expand somewhat at the expense of wheat.

### *Dairy Products*

The part of the initial assumption concerning the removal of internal trade barriers has special application in the case of dairy products. Eliminating the tariff on cream, for example, would not let much Canadian cream into New York City unless the administration of present health regulations were modified to facilitate inspection of Canadian sources. Interstate and international co-operation in this matter and universal inspection of sources of milk is therefore assumed.

There would then be some reciprocal movements of dairy products between both countries. Canadian cream, for example, would flow into northeastern United States markets to replace a portion of the supply that now comes from the Midwest.

Milk production in both countries could be expected to expand in response to a probable increase in total consumption. It is estimated that 20 to 25 per cent more milk will be needed in the United States by 1955, if minimum adequate nutritional standards are attained. Even though these standards are not achieved there is a strong upward trend in milk consumption which appears likely to continue. The expansion in Canada would be at a somewhat more rapid rate than in the United States because of the greater price stimulus and because of the fact that potential dairy areas have been less fully developed there.<sup>3</sup> The portions of Quebec and Ontario south of Ottawa and the St. Lawrence River would expand dairying considerably. Much of the surplus production from this area would probably be shipped in the form of cream to New York, Boston, and other northeastern cities. South of the border in northeastern milk sheds, there might be some contraction in marginal

<sup>3</sup> P. F. Brookens, *The competitive Position of the Dairy Industry in Canada*. U. S. Bur. Agr. Econ., Report F. S. 40. August, 1929. (Processed.)

producing areas as young people found more attractive urban occupations. For urban areas near the border, fluid milk would probably flow in both directions depending on local conditions.

Some additional Canadian cheese production would be forthcoming. Likewise: "Much butter . . . would move from Canada into our eastern markets . . . if the duty on it were removed."<sup>4</sup> Production in the prairie provinces and western Canada, mainly of butter, would expand considerably.

Although the relative developments mentioned would be greater in Canada, it must be remembered that dairying—unlike wheat production—responds rather slowly and some time is needed for growth. The additional imports from Canada would be small in relation to total production in the United States and with the growth in consumption, could be absorbed with scarcely any noticeable effects. The chief visible effects on the American side would be to strengthen those historical changes that have long been observed in the Northeast and the Lake States as dairymen have gradually shifted over from butter to the higher value fluid milk and cream production. In Wisconsin, for example, a part of the change would show up as a moderate and gradual shift from the use of milk for cheese to the higher priced fluid milk and cream.

The outstanding factor in the long-time prospect for dairy farmers is the strong upward trend in demand for dairy products. Dairymen in the heart of the Lake States can look forward to an expanding market for their own output even though Canadian production should expand at a slightly more rapid rate.

It is doubtful whether there would be any very serious adjustment problems in dairying from going on a free-trade basis with Canada. And some desirable results would follow from the broadening of the supply area for cream receipts in northeastern markets.

Perhaps the most difficult problems would arise in dealing with the removal of internal trade barriers. If this were done in a period like the present, when demand is rapidly expanding, the problem would be relatively simple. But it must be remembered that in some eastern milk sheds, some favored groups have made investments under the protection of trade barriers, which would not be able to stand under more freely competitive conditions. Some of these high-cost dairy farms would be below the profit margin and would withdraw from production if this protection were removed.

<sup>4</sup> John D. Black, *Agricultural Reform in the United States*, p. 194.

A word needs to be added at this point about the possible effect on dairy development in the Southern portion of the United States. Would the desired development of dairying in this region be retarded by the increase in Canadian imports? This result does not seem probable under the line of reasoning outlined above. Although the proportion of commercial cheese and butter production originating in the South might be somewhat less, the indirect benefits from the increase in domestic employment and demand resulting from an enlarged Canadian market for industrial goods would more than offset this. More southern milk would be consumed locally as higher value fluid milk and cream and the net position of southern dairying would be considerably improved.<sup>5</sup>

#### *Beef Cattle*

With the removal of the present restrictions on cattle imports from Canada, there is no doubt that larger numbers of range and grass fed cattle would move into American livestock markets. Some intermarket readjustments would result. However, the aggregate volume of this additional supply would not be great as a proportion of the total American supply picture. In 1938 the Canadian cattle imports represented  $2\frac{1}{2}$  per cent of the total number of cattle slaughtered in the United States and even if imports were doubled, they would still be a small part of the total.

Furthermore, it is doubtful whether the additional cattle imports would represent any real competition to our own range cattle industry since much of the resulting product would be re-exported to Canada for Canadian consumption. Cattle numbers in Canada are only slightly greater on a per capita basis than in the United States. Under the improved general demand situation assumed for both countries, it is probable that per capita beef consumption in both countries would be somewhat greater.

The whole cattle movement from Canada might almost be regarded as similar to milling wheat in bond. Our Corn Belt feeding enterprise would be enlarged and our packers would have a somewhat larger volume of business for export to Canada. Our own range cattle industry would be affected only as it participated in the improved domestic demand situation.

In Canada, the range cattle industry would be helped considera-

<sup>5</sup> See W. F. Finner, and R. L. Mighell, Trends in Dairying by Type-of-Farming Regions. U.S.D.A. Tech. Bul. 751. January, 1941.

bly but, on the other hand, the small cattle feeding industry in eastern Canada would be adversely affected. However, the expanding Canadian dairy industry could easily absorb this change.

#### *Hogs*

Both Canada and the United States will end the war with a greatly expanded hog enterprise. Canadian hog production is now nearly double the pre-war level, and the United States 1942 spring pig crop goal was set at 28 per cent over the 1941 crop.

For the first two or three years after the close of the war export demand for pork products will undoubtedly continue, but presently former sources of supply may reduce British and European demand for North American pork and lard. How much reduction then occurs will depend on which of several possibilities develops. Under a more rational economic organization of the European continent, former central European demand for hog products might be revived on a permanent basis.

Another possibility is that Danish, Dutch and Baltic hog producers may find the natural outlet for their pork products on the continent rather than in the United Kingdom, and that the important British market will be permanently open to Canada and the United States.

But even under the most hopeful circumstances both Canada and the United States are likely to be faced with the need for some contraction in hog production. Furthermore, both countries must be prepared to adjust toward the lean bacon type of hog. The wartime needs for fats and oils have compelled a temporary reversion toward the lard type of hog production. But with the return of normal peacetime conditions, vegetable oils are sure to offer stronger competition than ever before. To the competition from tropical vegetable oils, the wartime expansion in soybean and peanut oils has been added. Canadian hogs are already more largely of the bacon type and Canadian hog producers will be in better adjustment in this respect than United States Corn Belt producers.

Accompanying the wartime expansion in Canada has been a remarkable shift in the regional distribution of hog production. Although expansion has been general in all parts of the Dominion, numbers have increased about 150 per cent in the western provinces as compared with only about 40 per cent in the eastern provinces. In any post-war downward adjustment this additional western pro-

duction may be particularly resistant to change, as it is definitely in the direction of the long-time needs of the western provinces for a more stable livestock economy and is strongly anchored on a cheap wheat-barley feed base.

In the United States, too, there are definite indications of a continuing westward shift in hog production, although such a shift on a permanent basis is probably more limited by rainfall conditions than in Canada.

Because the Canadian hog expansion has been relatively much greater than that in the United States, the adjustment in the post-war situation may also be somewhat greater. However, as compared with the pre-war situation, the Canadian share of the total is likely to remain larger, because the war has simply hastened some adjustments toward livestock that were long overdue.

Whether existing duties on hogs and hog products are eliminated or allowed to remain will not greatly affect the outcome. Removal of the United States duties would merely improve Canadian hog prices without particularly affecting the United States prices.

#### *Fruits and Vegetables*

Because of climatic differences the greater part of the international movement in fruits and vegetables—both actual and potential—is from the United States to Canada. Although Canada has about 8 per cent of the combined population of both nations, it has only about 4 per cent of the commercial truck crop acreage. Canada produces no citrus fruit and very little deciduous fruit except apples, of which it has about 10 per cent of the total combined crop. On the other hand, Canada has about 17 per cent of the Irish potato crop and a considerable proportion of such root crops as turnips and rutabagas.

Much of the fruit and vegetable trade between the United States and Canada is non-competitive. United States shipments to Canada are made either in seasons when Canadian production does not take place or else they consist of commodities not grown there at all. The warmer southern vegetable producing areas of the United States, for example, produce winter crops which cannot be grown in Canada.

#### *Fruits*

Canada obtains most of its fresh fruit imports from the United States and the present Canadian tariff duties of 10-15 per cent on

most United States fruit (further adjusted for certain extra duties and arbitrary valuations) operate to raise the prices of fruits in Canadian markets. The effect of eliminating duties and, consequently, lowering prices to Canadian consumers, depends on the Canadian elasticity of demand. This demand is probably elastic enough for most of these products so that over a period of several years considerable increases in American shipments would be absorbed if the present duties were removed. Furthermore, both countries may reasonably anticipate larger overseas exports of fruit than have prevailed in the last few years.

The Canadian duty on oranges is 35 cents per cu. ft. from August through December. In other months they enter free. Grapefruit carry a duty of  $\frac{1}{2}$  cent per pound and lemons are free. The removal of these restrictions would result in some definite increase in citrus imports from the United States. Moreover, citrus growers would benefit still more from the general increase in Canadian consumers' incomes which might be expected to be the result of more total trade between the two nations.

### *Apples*

The surplus of Canadian apples is usually a somewhat greater part of the crop than is the case in the United States. The removal of the Canadian tariff would consequently do little to enlarge United States markets in most years. The removal of the United States tariff would, on the other hand, admit some Canadian apples to United States markets and have a slightly depressing effect on marginal apple areas especially in the Northwest and the Northeast. This would be offset to a large extent, however, by improved export outlets for both United States and Canadian production. And, at the most, Canada could not add more than perhaps 5 per cent to the total United States apple crop.

### *Potatoes*

Early potatoes from southern and intermediate areas move into Canadian markets without duty except from June 16 to July 31, inclusive. The removal of the duty during this period might mean a slight increase in outlets for southern potatoes.

Late potatoes, on the other hand, usually move in the opposite direction from Canada to the United States. At present, the United States duty of  $37\frac{1}{2}$  cents per hundredweight applies to seed potatoes

with a total quota of  $1\frac{1}{2}$  million bushels at this rate. Table stock potatoes have a rate of  $37\frac{1}{2}$  cents per hundredweight from March to November, inclusive, and a rate of 60 cents per hundredweight from December 1 to March 1. A quota of 1 million bushels per year is applicable at these rates. Importations above quotas for both seed and table stock pay a duty of 75 cents per hundredweight except in years when the United States crop is less than 350 million bushels when the low-duty quota on table stock automatically increases by the amount of the shortage.

If present duties and quotas were removed, considerable increases in potato production would probably occur in Prince Edward Island, Quebec, and New Brunswick. These increases would be marketed mainly in Boston, New York, and other cities in the Northeast. Canadian seed potatoes would come into heavier competition with northern seed producers in Maine and North Dakota and some other areas.

With free access to American markets, Canada might add 30 million bushels or about 8 per cent to the United States normal supply of potatoes. Potatoes have a relatively inelastic demand and it is probable that resulting lower prices would cause many marginal American growers to turn to other alternatives. American seed producers would feel the pinch most keenly although, of course, commercial table stock growers would benefit from lower prices for seed potatoes.

#### *Other Vegetables*

The removal of restrictions on vegetable shipments would have relatively moderate effects on vegetable production. Most Canadian and United States areas do not compete directly because of seasonal differences.

The Canadian market would absorb more of our surplus winter production of truck crops from southern producing areas; and probably more Canadian rutabagas would be brought to the United States. Some reciprocal exchange of other vegetables in border areas would take place.

#### *Maple Sugar*

Canadian maple sirup and sugar apparently averages as high in quality as Vermont sirup. With free entry, the Canadian production would probably increase and might lower the average price

somewhat unless some expansion in consumer demand should occur. At lower prices some marginal United States maple orchards would not be tapped. On the other hand, it should be pointed out that maple sirup prices have tended upward during the last 5 or 6 years despite larger imports from Canada. This is apparently accounted for by increasing commercial demand for maple sirup (e.g. by tobacco manufacturers) and by depletion of maple trees in some areas for lumber.

#### *Tobacco*

The present Canadian tariff on tobacco is highly protective. With its removal, the price of Canadian-grown tobacco in Canada would drop and production would decline markedly. The United States is already on an export basis with respect to the types grown in Canada and our exports to Canada would increase correspondingly. The area that now produces tobacco in Canada would have an offset in that it would benefit considerably from the reduction of the tariff on dairy products.

Of course, the removal of preference in United Kingdom markets would also effectively reduce Canadian tobacco production. In this instance multilateral analysis is especially needed.

#### *Cotton*

Under the terms of the existing trade agreement with Canada raw cotton is bound on the free list. Consequently, closer economic collaboration could affect our raw cotton exports to Canada only through the indirect influence of increased Canadian purchasing power. Assuming no further increase in Canadian imports of Brazilian or other cotton, there would no doubt be some increase in our cotton exports with a general improvement in Canadian economic conditions.

#### *Wool*

Wool is highly protected in the United States. Prices of comparable grades of clothing wool run about 30 cents a pound higher in Boston than in London.

But if concessions were granted on Canadian imports that were not also extended to other countries, the prices of wool and mutton in this country would not be affected materially. Canada now has only 6 per cent of the combined sheep population of the two countries.

*Summary*

The direct effects of the elimination of trade restrictions between the United States and Canada would vary between commodities. Marked decreases in production in the United States would develop in the case of wheat. Smaller, but locally significant recessions would occur in late potatoes, turnips, and in various minor products.

United States producers would find an enlarged Canadian outlet for citrus and most other fruits, early vegetables, early potatoes, and tobacco. From the Canadian point of view larger United States markets would be opened for wheat, cattle, dairy products, late potatoes, rutabagas, and certain fruits.

In the case of dairy products, there would be some reciprocal movement near the border. Because of upward trends in dairy consumption in both countries, it is probable that the movement of additional Canadian dairy products into the United States would not materially affect prices. Canadian expansion would simply take place at a slightly faster rate than that in the United States. In eastern milksheds, the removal of internal trade barriers would hasten the retirement of some marginal high-cost dairy farms.

Hog producers in both countries will, in any case, have to contract production unless former European markets are permanently reopened. The Canadian contraction may be relatively greater.

Finally, it must be noted that the general and more indirect effects of the whole industrial realignment that would be likely to follow from closer economic collaboration would be even more important than the direct effects within the agricultural field that are considered here. These indirect effects would appear as substantial increases in general domestic demand in both countries. American farmers and Canadian farmers would both benefit from this situation.

*Further Outlook*

The complete removal of trade restrictions between the United States and Canada seems highly improbable. But the basis for substantial progress in this direction is definitely being laid.

Both countries have been developing similar agricultural programs for the benefit of their farmers and both have taken some steps leading toward improved national nutrition. A major element in achieving a permanently improved national dietary lies in the

development of livestock systems of farming and in the integration of grain farming systems with livestock needs. Provided reasonably full employment and good incomes can be maintained in the post-war period, there will be a strong upward trend in demand for dairy and poultry products, for lean meats and for many vegetables. Parallel action toward similar objectives may be strongly conducive to the lowering of trade barriers. Wartime arrangements to facilitate the exchange of agricultural products may be continued and expanded in the post-war period.

The direction of one type of future economic collaboration in agriculture is foreshadowed by the current wartime policies for promoting the use of wheat as a livestock feed. In both Canada and the United States, wheat prices have been supported by government programs for some years. Although this support has given immediate farm income protection it has definitely retarded desirable farm adjustments. Wartime programs have now been developed for feeding wheat. In Canada this takes the form of freight subsidies into feeding areas and in the United States government-owned wheat is released at a low price for feeding. We can probably look forward to a permanent two-price system for wheat, with something corresponding to parity prices being maintained for the wheat moving into domestic human consumption and a lower price for wheat used for feed or industrial purposes. Such a differential price policy has been strongly advanced by a number of agricultural economists.<sup>6</sup> It has also been endorsed by Secretary Wickard in his Enid, Oklahoma, address on April 28, 1942.

"From the way things look now, it seems to me that the best course to begin thinking about would be something like this: Maintain parity for every producer's share of the wheat grown on whatever acreage may be needed to supply our full domestic needs for flour—perhaps 40 million acres—and then have the areas that are especially equipped to grow wheat go ahead and raise considerably more than their domestic flour shares, then sell that excess wheat at a lower price for feed and for industrial uses and exports."<sup>7</sup>

With such a price system in effect, it is not unreasonable to suppose that feed wheat may be permitted to move freely across the

<sup>6</sup> Sherman E. Johnson, *Adapting Agricultural Programs for War Needs*. JOUR. FARM ECON., Feb. 1942.

<sup>7</sup> Claude R. Wickard, "Wheat Farming in Wartime," address before a meeting of farmers at Enid, Oklahoma, April 28, 1942.

international line. The final regional pattern of wheat production in Canada and the United States would become not unlike the one indicated earlier, although of course the changes would not proceed as far as would be the case if both high and low priced uses for wheat were fully pooled.

The suggested developments for feed wheat naturally have meaning with respect to the future pattern of livestock production. The current westward shift of hog production in Canada is symptomatic. In time dairy and poultry production will also tend to increase relatively more in many wheat areas in which feed wheat will outyield other grains. The present centers of livestock production need not be adversely affected so long as total demand for livestock products increases. Furthermore, the full recognition of excess wheat as a feed grain and its pricing on that basis will tend to prevent fluctuations in feed grain prices and thus increase efficiency in feeding operations in all regions by removing an important element of risk and uncertainty.

Another illustration of wartime collaboration with future possibilities is an arrangement recently concluded with Canada for potatoes. Because of the prospect for a short 1942 potato crop in the United States, Canada has undertaken an expansion in potato acreage. If the United States crop is as short as appears likely (June 1942) the additional Canadian potatoes will be sold in the United States market for table stock. If, on the other hand, the United States crop should be large, the joint arrangement provides that up to 5 million bushels of Canadian potatoes will be purchased by the United States Government at starch prices for conversion to starch or other potato products. In other words, a part of the Canadian crop has been underwritten by the United States at a starch price level. Such an arrangement has substantial value to both countries especially in the case of a perishable crop like potatoes with an extremely inelastic demand. The United States is given some protection against the prospect of a very short crop. Canada is given some assurance against extremely low prices. In effect, a part of the minimum price support program for United States potatoes has been extended to Canada for the purpose of assuring additional war production.

The potato illustration suggests an approach of wide application even in peacetime. With joint arrangements concerning acreage allotments, minimum price supports and surplus disposal, the prin-

cipal reason for continuing restrictive duties and quotas between Nations would disappear.

Wheat and potatoes are only two illustrations of possible future lines of agricultural collaboration with Canada. If the field was broadened to include other countries as well, many more examples of current progress could be cited. For example, the recent understanding with Peru under which the Commodity Credit Corporation will purchase Peruvian cotton under a scale of prices to be adjusted in accordance with Peruvian acreage adjustment has special interest for the post-war period.

Although United States-Canadian trade relationships have been considered in this reconnaissance analysis in what amounts to a bilateral sense, it is, of course, apparent that traditional United States policy will require multilateral treatment of all Nations. If present tendencies toward economic collaboration and relaxation of trade restrictions prevail in the post-war years they will almost surely be generalized and will lead to many industrial and agricultural adjustments. If these are recognized sufficiently in advance and appropriate action taken promptly, agriculture in the United States may benefit greatly.

## DISCUSSION

*By R. H. ALLEN AND DAVID L. MACFARLANE  
University of Kentucky*

**S**TUDY of the economic consequences of adjusting downward trade barriers between the United States and Canada is very timely. This reconnaissance treatment of the agricultural aspects of this subject is very stimulating and suggestive. The merits of Mighell's consideration of the problem are evident. Hence, the present writers would like to suggest an alternative level of analysis, and the placing of greater stress on certain analytical tools they feel are particularly adapted to the task being undertaken.

The removal of tariff barriers would tend to expand the markets of all producers so located that their products could compete in markets across the border. This would set in motion a series of developments of a complicated nature. It is advantageous to look at the situation broadly before launching upon a detailed analysis of any one segment such as the direct agricultural effects.

It is well known that tariff policies have been largely responsible for the development of a fringe of industry just north of the international boundary. Raw materials are transported relatively long distances to supply many of these industries. Removal of tariffs would force some of them out of business, and this would work hardships upon the laborers and others employed in the industries affected. On the other hand it would bring cheaper goods to Canadian consumers and increased returns to United States industry. Both internal and external economies might result in further benefits to producers or consumers or both.

It is from these industrial developments that the important indirect effects upon American farmers to which Mighell makes reference would arise. In this connection it is important to recognize that Canada is a largely rural country engaged primarily in the production of raw materials. With a population of about 12,000,000 there are 735,000 farms whereas the United States with a population of 132,000,000 has only 6,097,000 farms. Hence it would appear that the expansion of the market for Canadian farm products would be large in comparison with the expansion of the market for the products of United States industry. The American farmers' share of these benefits would thus probably be smaller in the aggregate and much smaller on a per capita basis than the direct benefits to

Canadian farmers. So much this very broad general analysis of the problem tells us. Refinement of measurement would be necessary for accurate quantitative conclusions. Even this level of treatment is sufficient to call into question the author's observation that the indirect effects upon United States farmers would be greater than the direct effects.

It can be readily realized on the other hand, that the effects both direct and indirect on Canadian farmers would be beneficial in nature. The removal of barriers would not only greatly expand their outlets for farm products, but would also result in very significant reductions in costs. Farm machinery, fertilizer, certain feedstuffs, and twine prices in Canada might be expected to fall considerably. It is worth noting that Canadian agrarian thinking on the tariff question has centered on cost reduction almost to the point of ignoring the gains which would arise from expanding market outlets.

The direct effects on American farmers would probably be unfavorable on balance since the proportionate increase in agricultural producers for the common market would be several times greater than the increase in the size of that market. Might not these adverse direct effects equal or perhaps exceed the favorable indirect effects upon United States farmers? The writers do not profess to have the answer to this question. They suggest the need for thoroughgoing quantitative analysis of the problem before any answer is given. They can cite the fact that the nature and operation of the 1935 Canadian-United States Trade Agreement generally bears out their view. The very fact that the use of quotas accompanied relatively small absolute tariff reductions on six important Canadian agricultural products indicates clearly that these exert a distinct pressure against the tariff wall. For some of these products the annual quotas have been filled in some years in less than six months. It is worth noting that in the case of tariff concessions by Canada no quotas were used. A second fact of this character should be noted. It is that even the forty-two cent tariff on Canadian wheat did not permit sufficient protection after the adoption of the present level of wheat loans (Bankhead-Fulmer Amendment). By Presidential decree there is now an annual import quota of 800,000 bushels of wheat fit for human consumption.

Turning now to the direct effects upon American agriculture the primary wish of the writers is to draw attention to their belief that in treating the problems at hand there is a particularly favorable

opportunity for the employment of the tools used in interregional analysis. This requires examining the nature of supply and demand functions for all important products which are produced in each agricultural region of the two countries.<sup>1</sup>

The suggested approach keeps treatment of the problem in those broad terms where the economist can do the best work, for in supply and demand analysis are brought together all of the technological and economic considerations which are relevant to answering questions respecting likely or expected production shifts. Further it leads to attaching time significance to the results. Once the supply and demand schedule concept is introduced, the researcher is led to state explicitly the assumptions respecting the time period involved. In addition he deals in like manner with the precise limits of the production and market areas, the nature of alternative production opportunities in the areas considered, and with the price and income effects of removing trade barriers.

The precision which would be added can be illustrated by example of interregional study of the wheat industry. For each of the important type-of-farming regions of the United States and the Ontario-Quebec and Prairie Province regions of Canada, supply functions could be established. They would be derived by a synthesis of historical data and would be valid under specifically assumed conditions. For each region there would be constructed supply schedules for wheat delivered at local elevators. From these would be derived schedules for wheat at the interior terminal elevators. The supply curve for each of the two Canadian regions calculated for delivery at Buffalo would be moved downward by the amount of the tariff if the assumption of complete removal of the tariff were used. The American supply schedules for this market would of course not be affected. By relating these supply schedules to the appropriate demand schedules new price estimates could be made, and the regional effects on production and income shown.

It is perhaps confusing to have Mighell examine the wheat situation in terms of lower prices in both countries as a result of the abandonment of present price supporting measures. It would be more helpful to keep the effects of tariff removal or reduction separate from other factors. Actually lower wheat prices resulting from free international competition might bring about an increased de-

<sup>1</sup> See Sherman E. Johnson, Frank T. Hady, Ronald L. Mighell, R. H. Allen, and Erling Hole, *Analysis of Interregional Competition in Agriculture*, B. A. E., Mimeo-graph, 1940.

mand for some form of government aid to American wheat growers.

A supply schedule analysis by commodities would provide a basis for comparing the quantitative importance of, for example, the adverse effects for wheat farmers of the United States with the favorable effects upon citrus fruit growers. One gains the impression that Mighell did not evaluate the relative importance of the effects upon the producers of the various commodities discussed.

Another important step in the analysis would be one in which regional effects would be estimated by combining the effects upon all important commodities in each region. Such an analysis would probably indicate widely divergent effects upon different regions ranging from decidedly adverse to highly favorable. Such regional effects would be all important politically and economically especially during the transition period. Classical arguments for free trade are likely to be unpalatable to those groups whose balance sheets would show an excess of unfavorable effects.

An important limitation of the supply and demand schedule approach should be noted. This is the inherent weakness of this approach in measuring the extent of the increasing returns (particularly those attributable to external economies) which result from large industrial production, in contrast to large scale industrial production. Allen A. Young stresses the gains which result from the realization of external economies in the following statement: "Taking a country's economic endowment as given . . . the most important single factor determining the effectiveness of its industry appears to be the size of the market."<sup>2</sup> He shows that the traditional procedures tend to divert attention to the individual or partial aspects of a process which ought to be seen as a whole. While he felt that these limitations were serious Professor Young did not recommend abandonment of the supply and demand analysis. The present writers assert a need for full recognition of both the uses and limitations of this method.

<sup>2</sup> A. A. Young, Increasing Returns and Economic Progress, *Economic Journal*, XXXVIII: 533: 1928.

## HIRED FARM LABOR IN WORLD WAR II

HARRY SCHWARTZ  
*Washington, D. C.*

### *I. The Background*

**H**IRED farm labor occupies a strategic role in the complex of resources necessary to produce the record crops essential to victory. The last Census indicated that about 40 per cent of United States farms employed non-family help in 1939. Most of these were the larger commercial farms which produce the great bulk of foods and fibers sold for non-farm use. Without sufficient hired workers, our commercial agricultural production would be cut deeply indeed.

Many kinds of workers are hired farm laborers, but for our purposes we may distinguish two chief groups, the farm hands and the casual workers. Men in the first group are employed for relatively long periods, several months or a year, and can do a variety of jobs. They are experienced in handling livestock; know how to run a tractor and make minor repairs when a machine gets out of order; and in general can be trusted to do important tasks with a minimum of instruction and supervision. The casual worker is hired for brief periods at times when the regular work force must be supplemented for the harvest or for some other particular crop operation such as cotton chopping. These casual workers need not be skilled in farm work, since their task is usually a repetitive operation which can be learned quickly. It is important to differentiate at least between these two types of workers since it requires considerable training and experience to be a good farm hand, while good health is the main prerequisite for casual work.

Public concern with farm labor has shifted sharply in the past thirty months. In mid-1940 the problem was seen to be one of farm labor and farm population surpluses; during the past crop season the air was full of reports of farm labor shortages and the problems of bringing additional workers to the fields. This shift in attitude is the result of two and a half years of defense and war activity which have necessitated the reallocation of much of our labor force from civilian production and involuntary unemployment to the armed forces and military production. According to the Works Progress Administration Monthly Report on Unemployment, the number of unemployed declined from 8,400,000 in May 1940 to 2,600,000 in May 1942. In the same period the size of our armed forces increased

by several million men. The number engaged in armament production rose from 500,000 in the second quarter of 1940 to over 10,000,000 in the second quarter of 1942.<sup>1</sup> As our war effort has progressed, this shift of manpower has gone and will go much further.

Our farm people have at least two vital tasks in the war effort. Not only must they secure record production to meet our enormous needs, but they must also supply hundreds of thousands, perhaps millions, of men and women for service away from the fields. This latter task is somewhat eased by the fact that during the 1930's American agriculture was the sanctuary of large numbers of unemployed and underemployed persons—many of them youths who could not follow the usual paths to the cities because of great urban unemployment. On the basis of 1940 Census data, Conrad Taeuber estimated that with proper organization of the farm labor market and efficient utilization of machinery and family and hired help, as many as 2,000,000 persons could be taken from the farms without impairing agricultural production.<sup>2</sup> But even by the summer of 1942 much of this slack had been taken as evidenced by sharply rising farm wages and the employment of many workers never before used on farms.

At least three important factors complicate the vast reallocation of our farm labor force necessitated by the war. First, the competition for workers is a rivalry for quality as well as for quantity. During 1942 the armed forces alone will absorb upwards of 3,000,000 men, and in 1943 the number may be as great or greater. Of those men remaining in civilian life, skilled workers and those capable of learning skills are most likely to be attracted to the highest paying jobs, and these are primarily in war production. While agriculture maintains its present wage relationship to industry, it will be difficult for it to compete for hired labor on purely economic terms. Unless compulsory farm labor is instituted, farmers must rely more and more upon the labor of their own families, and that of women, older children, older men, and others who for one reason or another—patriotism, health, lack of industrial training, etc.—are willing and able to work on the farms.

A second problem is the seasonality of farm labor needs. Even if rising farm wages permit our farms to retain most of their skilled

<sup>1</sup> Estimate by the Bureau of Labor Statistics.

<sup>2</sup> Tolan Committee Hearings, part 28, p. 10851.

hands, or harder work by the farmer and his family makes up for their loss, output will be cut seriously if large numbers of additional laborers cannot be brought to the fields at harvest and other times of peak labor needs. Not only must these extra workers be found in the face of steadily declining unemployment, but they must be transported to the areas where they are needed. In May 1942 Representative Tolan reported these difficulties to Congress:

Investigators for the Committee have just returned from a study of the agricultural migration along the East Coast. . . . They report that thousands of workers, both white and colored, who were available for work in the vegetable industry this winter, now find themselves unable to secure transportation to jobs farther north. The usual means of conveyance are largely not available to them because of the shortage of rubber and rationing of gasoline. Those who have previously driven private automobiles or traveled together by truck are stranded.<sup>3</sup>

Finally, the areas from which large numbers of farm people have been drawn for military or war production service have not coincided with the areas of greatest excess farm population and will not in the future. Taueber's studies showed that the inefficiently utilized manpower in agriculture was largely concentrated in ten southern and southeastern states,<sup>4</sup> but these have not been the chief sources of farm people going into uniform or war work. The number taken by the Selective Service System in each area has been proportional to population, while war production has been mainly concentrated in the industrialized states of the North Atlantic and Mid-West areas.<sup>5</sup> Consequently, localities having relatively little slack in farm manpower have also had to contribute substantial numbers of workers, thus making for farm labor difficulties there. In the regions of greatest farm population surplus there probably still are reservoirs of underemployed people available.

In many ways the present farm labor situation resembles that which was successfully met in 1917-18.<sup>6</sup> But there are several important differences which throw additional light upon our present problems.

First, our farms are much more mechanized today than in 1917. There were an estimated 1,800,000 farm tractors at the beginning of 1942 as against 246,000 on Jan. 1, 1920.<sup>7</sup> Similar differentials

<sup>3</sup> Representative Tolan's public statement released May 22, 1942.

<sup>4</sup> Tolan Committee Hearings, part 28, p. 10816.

<sup>5</sup> New York Times, Aug. 28, 1942.

<sup>6</sup> Cf. the writer's Agricultural Labor in the First World War, JOUR. FARM ECON., February, 1942, pp. 178-187.

exist with respect to other types of equipment. Moreover the machines available today are much more efficient than those in use twenty-five years ago and can do many more tasks. On the other hand, during the last conflict losses of workers were overcome to an important degree by record introduction of farm machinery. Tractor sales, for instance, doubled between 1916 and 1917, and then doubled again in 1918.<sup>7</sup> But in this war, production of new farm machinery has been cut drastically by the War Production Board. Not new machines, but more efficient and greater utilization of the machines now on farms will have to be depended on to help meet the drains on the farm labor supply. Custom work and other methods for community use of farm machinery will have to be expanded greatly. A further corollary of this mechanized agriculture is the vulnerable position of our farm economy in the face of rubber and gasoline shortages, and the need for experienced farm machine operators.

Second, we know much more about farm labor supply and demand than we did in 1917. The Census of 1940 gives us a relatively recent benchmark to work from. Studies of particular farm worker groups made during the 1930's give us a clearer picture of the farm labor force than our fathers had. The recent investigations of modern agricultural technology enable us to estimate more accurately than ever before the labor requirements of many crops and crop operations. The Tolan and LaFollette Committee hearings are rich storehouses of farm labor information. The Department of Agriculture's frequent estimates of farm employment and wage rates on a state and regional basis provide further valuable data.

Third, Pearl Harbor found us with an employment service which had had some experience with the problems of mobilizing hired farm labor. This was not true in 1917 when a hastily assembled apparatus had to serve. Not until January 1918 was a national employment service set up, and it had little more than the previous year's experience to rely on. During 1941, on the other hand, state employment services made over two million agricultural placements. But their effectiveness was far from uniform. Texas and Tennessee made almost half the total number of placements, while Arkansas, Oregon, and California were responsible for another 25 per cent. In each of 28 states, however, less than 10,000 farm

<sup>7</sup> The Agricultural Situation, February, 1942, p. 11.

<sup>8</sup> Agricultural Statistics 1941, p. 564.

placements were made.<sup>9</sup> In many states farm placement work was relatively neglected because surpluses of farm labor and the unorganized condition of the agricultural labor market made employment service activity here seem unnecessary or unduly difficult. Whatever farm placement was done was often supervised by individuals whose major responsibility was veterans' placement and who had neither interest nor time for farm labor work. We shall note below the increased employment service activity in this field during 1942.

During 1941, too, the Department of Agriculture developed agencies of its own to aid efforts for coping with farm labor problems. Farmer interest was stimulated by formation of the county farm labor subcommittees, while the department's resources were mobilized in the county defense—later war-boards which bring together the personnel of the different department agencies to plan for dealing with farm labor and other war problems of agriculture.

In certain important respects, therefore, the United States was better prepared on the farm labor front when we entered this war than when we entered the last. But the greater number of men being used in this conflict and the likelihood that our participation in it may be for several years indicate that the drain on our farm labor force will be far more severe this time than in 1917-18.

## *II. Recent American Experience*

Between the fall of France and Pearl Harbor, at least three important forces worked to reduce the farm labor supply: The Selective Service System took hundreds of thousands into the Army. Construction of new war production plants and military cantonments required hundreds of thousands of more workers throughout the country. Actual production of both civilian and military goods shot steadily upward during this period giving new employment to millions and creating job opportunities for many formerly bottled up on farms. The draft process took farm people away through the force of law; higher incomes, better working conditions, and shorter hours were the lures that drew workers from the fields to other jobs. War production employment alone should not be overestimated in assessing the forces at work here. A Works Progress Administration survey of 51 defense centers during the Fall of 1941 showed that in most of these the proportion of farm workers among

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<sup>9</sup> Data from the Reports and Analysis Division, Bureau of Employment Security,

migrants was less than ten per cent. Detroit had the highest proportion of agricultural migrants of any city studied but even here farm people composed only 21 per cent of the total.<sup>10</sup> Indirectly, though, war production further accelerated the movement of farm workers by stimulating the migration of many employed in small cities and towns, and thus creating new job opportunities for men and women from agriculture.

The pressure of these factors was felt sharply in 1941 and it required substantial increases in farm wages and incomes to maintain total farm employment at a level only slightly below that of 1940. In 1941 farm wages rose about 17 per cent above the 1940 level,<sup>11</sup> and the average number of hired workers employed dropped only slightly to 2,532,000 as against 2,566,000 in 1940.<sup>12</sup> Hired farm workers gained further because of improved housing and increased prerequisites which they received as farmer competition for workers increased. The relative diminution in the farm labor supply and the consequent rise in wages differed from region to region. The Pacific, New England, and Middle Atlantic states were hit hardest by the competition of war industries while the South Atlantic and East South Central states were least affected, though even in them monthly wages without board rose over 20 per cent between Jan. 1, 1941 and Jan. 1, 1942.<sup>13</sup>

Since Pearl Harbor, labor force reallocation has speeded up considerably. Several million men have entered the armed forces, while war production has been vastly expanded through the efforts of additional millions of workers. Data are lacking on the number of workers accustomed to farm labor who have been drawn to other occupations by these developments but they must aggregate several hundred thousand at least.

Selective Service policy has recognized that skilled farm workers are essential and local boards grant deferments to those workers vital to farm production. Four points are taken into account: the importance of the products of the farm where the man works; the importance of the farm's contribution to the nation's agricultural production; the importance of the worker's skills; and the relative labor shortage in the area. Two groups of farm products were desig-

<sup>10</sup> H. B. Myers; Defense Migration and Labor Supply, *Jour. Amer. Stat. Assoc.*, March, 1942, p. 74.

<sup>11</sup> The Agricultural Situation February, 1942, p. 24.

<sup>12</sup> Bureau of Agricultural Economics, Farm Labor Report, April, 1942.

<sup>13</sup> *Ibid.*, January, 1942.

nated as of key importance to the war effort, and presumably it is workers on these products who have received greatest consideration for deferment.<sup>14</sup> Local boards have been asked to work closely with the county boards which supply information as to which men are essential for the production of necessary commodities and can not be replaced at the time of classification.<sup>15</sup> Late in May, General Hershey transmitted a letter to local draft boards giving Secretary Wickard's opinion that general farm labor shortages existed in ten New England and Middle Atlantic states, as well as Ohio and Michigan, while local shortages existed in the Carolinas, Indiana, Illinois, Wisconsin, Minnesota, and Arizona.<sup>16</sup>

The Selective Service System has sought to minimize the number of skilled farm workers, family or hired, whom it has taken, but in many areas with predominantly farm populations, local boards have had no alternative but to take appreciable numbers of such workers to meet their quotas. This has affected chiefly single hired workers and farmers' sons. Farmers have usually been eligible for deferment on the ground of dependency. Statements by General Hershey last August indicated, however, that the necessity for building our armed forces to a size never approached before would require drastic curtailment of the number of occupational deferments, including those to farm labor.

Increased war output this year has been made possible largely by using workers formerly employed in making civilian goods. Former farm workers, both skilled and casual, have also joined this labor force in large numbers, in part taking the place of urban workers who have put on uniforms. One effect of increased urban employment has been to reduce usual seasonal migrations from cities to farms. For instance, each Spring many Italians have customarily left Philadelphia to work on South Jersey truck farms. This year many of them remained home, having secured lucrative and steady employment in the city.<sup>17</sup> In California, the Okies and Arkies have been reported flocking to airplane plants and shipyards, thus seriously depleting the usual numbers of migratory fruit pickers. The uprooting of Japanese on the Pacific Coast, and the restrictions placed on movements of enemy aliens have eliminated other groups of hired farm laborers.

<sup>14</sup> Selective Service System Memorandum, Dec. 4, 1941.

<sup>15</sup> Selective Service System Memorandum, February 16, 1942.

<sup>16</sup> Selective Service System Memorandum, May 23, 1942.

<sup>17</sup> New York Times, May 8, 1942.

Despite these factors, the number of hired farm workers employed during the first eight months of this year was approximately the same as in 1941, but this was possible only because of substantial rises in farm wages and incomes and the hiring of large numbers of laborers not usually employed in agriculture.<sup>18</sup> On July 1, 1942, the index of farm wage rates was at the highest point in twenty-two years, having risen 25 per cent since July 1, 1941.<sup>19</sup> Cries of farm labor shortage have come from New Jersey asparagus farms, Idaho beet fields, California fruit orchards and other areas, but reports of crop correspondents to the Department on Agriculture up to Aug. 1, 1942 indicated "that so far only a negligible part of the production has been left unharvested because of the smaller labor supply."<sup>20</sup> As this is written it seems probable that this year's record breaking production will be harvested successfully despite shortages of experienced workers in many regions. To accomplish this result, farmers and their families will have had to work harder than ever, and to use their available machinery and hired labor—much of it inexperienced—at as close to maximum efficiency as possible.<sup>21</sup>

### *III. Mobilizing Farm Workers*

Experience in 1917-18 and 1941-42 seems to show clearly that when the number of workers ordinarily available for agricultural labor is declining sharply, organization of the farm labor market is essential to mobilize sufficient numbers of workers. In the past farmers have had little difficulty getting help. Men either came to them looking for jobs or they could go into town and hire workers on the streets. Today farmers can no longer expect to find workers automatically whenever they need them. War needs for manpower have severely reduced the numbers of available experienced farm hands and casual workers. Organized activity is needed to ensure the presence of sufficient workers when and where they are needed.

The ideal situation would be that in which every employing farmer informed his local employment service office every time he needed workers, telling how many he wanted, when and for how long they were needed, what he was willing to pay, and the type of facilities he had available for them. Similarly the employment ser-

<sup>18</sup> Bureau of Agricultural Economics, *Farm Labor Report*, August, 1942.

<sup>19</sup> *Ibid.*, July, 1942.

<sup>20</sup> *Ibid.*, August, 1942.

<sup>21</sup> R. C. Tetro and M. R. Cooper, *War and Farm Work*, Washington, 1942 gives an interesting discussion of ways of increasing the efficiency of farm work.

vice would have a file of all available workers in the vicinity and could either supply the farmer with local people or with workers brought from a distance through requests cleared with the state or regional employment service offices. We are still far from this ideal. Most farmers and farm workers probably have never used the employment service and may not even know of its existence. A vast educational campaign is needed to inform both farmers and workers of the advantages to be gained by using the service's facilities. In the absence of an agency capable of recruiting workers from near and far, farmers fearing labor shortages seek to get workers on their own by many expedients, and soon reports spread far and wide of great numbers of workers needed in a particular area. Workers attracted by such reports often find that the number of outside laborers needed has been overestimated, or that the wages or living conditions are so undesirable that they will not accept jobs. All this adds up to waste of labor, and frequently also to injury or loss of crops. Organized, responsible worker recruitment by the employment service is the best alternative to such waste.

Note has already been taken of the pre-Pearl Harbor work of the various state employment services, and of their weakness in the farm labor field. Early in 1942, steps were taken to strengthen these agencies. They were amalgamated into the federally controlled United States Employment Service. In Washington a separate Farm Placement Section was set up with specific responsibility for dealing with agriculture's war labor problems. A plan was drawn up calling for extensive farm placement activity in every state, starting with at least one full time farm labor worker in every local employment service office where one was needed, and continuing with full time agricultural labor personnel at the state and regional administrative levels. These latter have the primary responsibility for supervising and coordinating farm placement work in their areas, and also for arranging clearance of workers between counties, states, or regions in response to orders from farmers in places having inadequate local labor supply. As envisaged in this plan the employment service offices would receive farmers' requests for workers and register would-be laborers. Thus employers and employees could be brought together easily and quickly. The plan also saw the Employment Service responsible for spreading educational material designed to recruit farm laborers from people not ordinarily engaged in such work.<sup>22</sup>

It was along these lines that the Employment Service operated during the 1942 crop season and aided many areas to overcome threatened labor shortages. The full effort planned originally could not be executed because of lack of appropriations for sufficient staff and other expenses. But as the farm labor supply picture becomes worse in the years to come, the employment service must shoulder an ever increasing responsibility on this front.

Formation of the War Manpower Commission early in 1942 affects farm labor because this is part of our total labor situation. This agency is responsible for viewing the total labor supply and requirements of the nation, and setting up any controls necessary. It is not without significance that three of the first eight directives issued by the Commission dealt with farm labor specifically, suggesting steps to aid the situation.<sup>23</sup>

But even with these government agencies operating, the problem of sources of farm labor must be faced. A basic principle here is that local people should be used when available, and that when recourse is had to outsiders they should come from as near as possible. This economizes transportation facilities and expense and prevents the waste inherent in leaving local people idle while bringing in men and women from a distance to do a job. A second point to be considered is that the recruitment of additional laborers in these two groups presents different problems.

Since the chief characteristic of a farm hand is his skill at many farm jobs, his replacement must have similar skill. One source of replacement is former farm hands or farmers who are not now employed in agriculture, but who can be persuaded to return. Retired farmers and city unemployed are particularly worthy of consideration here. In New York City this past spring an employment service canvass turned up several hundred experienced farm workers who had lost their city jobs because of priority difficulties, and who were glad to be placed on farms again.<sup>24</sup> Another reservoir of experienced farm workers is the overcrowded rural areas of many southern and southeastern states from which many farmers and their families could be moved for more valuable work elsewhere. These people would require some additional training, but they

<sup>23</sup> This description of the employment service's farm labor plans is taken primarily from Bureau of Employment Security Memoranda of December 8 and 13, 1941.

<sup>24</sup> New York Times, May 22, 1942.

<sup>25</sup> Ibid., May 15, 1942.

would have the initial advantage of being accustomed to farm life even though they might not be too familiar with northern crops and methods of cultivation.

To make new farm hands, inexperienced workers must be trained to perform basic farm duties, and sent to farms where they can gain experience on the job. For the long pull, the workers so trained should be individuals who are unlikely to be taken into the armed forces and who have indicated their willingness to remain on the farm. Women and older men from villages and cities would seem to be excellent material for such training. In England thousands of women have been taught how to operate tractors and perform other technical agricultural tasks with satisfactory results.<sup>25</sup> Older boys from towns and cities can help out at many semi-skilled farm jobs after relatively short periods of training. Newly trained workers will not be as efficient as the experienced people they will have to replace, and farmers will have to overcome their prejudices against women farm hands. Despite these difficulties, such training is necessary to maintain one of the most vital segments of the farm labor force.

Many groups can contribute to the supply of casual workers. Formerly the bulk of this group consisted of three elements: migratory workers who traveled long distances in "jalopies" and trucks following the crops, high school and college students earning extra money during their vacations, and townspeople from villages and cities adjacent to farm areas who had other jobs most of the year. Usually the number of available casual workers more than sufficed to meet farmers' needs so that wages were low, living and working conditions far from desirable, and farmers felt little anxiety for an adequate labor supply. Today war has taken many of these former workers from their usual occupations and gas and tire rationing have seriously hindered the mobility of many who formerly followed the crops. Yet it is essential that sufficient numbers of these workers be available when needed at harvest for without them great crop losses will be suffered.

Where the number of workers customarily available for this work has been reduced to the point of threatening shortage, a two fold task faces the employment service. First, new workers must be recruited, either from a distance or from among local people who do not ordinarily engage in this work; second, these workers must

<sup>25</sup> *Ibid.*, May 30, 1942.

be brought to the fields where and when they are needed. It must be borne in mind, however, that there is a supply curve for casual farm labor, and care must be taken that a farm labor shortage is not declared to exist before the beneficial effects of a reasonable increase in wages have been tried. Higher farm prices make possible such increases.

The largest group of potential casual farm workers consists of older high school children plus college students. By state law or otherwise, many states have recently liberalized the conditions under which young people may work on farms. In many communities children may be absent from school to do farm work for varying periods and then receive special help when they return in order to catch up with their studies. Other communities have closed schools earlier and opened them later than usual to make students available for longer periods.<sup>26</sup>

We may cite several examples of the successful use of older high school children to supplement inadequate casual farm labor forces. During the fall of 1941, for instance, farmers in Northwestern New York used high school juniors and seniors from Rochester to augment an inadequate migrant labor supply. Growers furnished transportation, paid the prevailing wages, and provided proper supervision and reasonable working conditions under an agreement with the employment service. For two weeks 700 boys and girls harvested tomatoes, beans, and other crops, earning \$10,000.<sup>27</sup> Denver high schools gave a four weeks course in farming to over 1,200 students this past spring, enabling many of them to help out during the crop season.<sup>28</sup> The Los Angeles Y.M.C.A. conducted 15 student labor camps throughout Southern California this past summer to provide housing for some of the thousands of high school students who worked in the fields.<sup>29</sup>

College students too have helped out. A Volunteer Land Corps composed of Eastern college men sent about 1,200 workers to farms in Vermont and New Hampshire this past summer where they worked for \$21 per month with food, lodging, and laundry.<sup>30</sup> In late August, 500 Yale men were recruited by the Employment

<sup>26</sup> A. B. Jebens, State Agricultural Legislation, 1942, *Land Policy Review*, June, 1942, p. 28.

<sup>27</sup> F. G. Bell, Calling all Schools, *Employment Security Review*, May, 1942, pp. 15, 16.

<sup>28</sup> Denver Post, May 31, 1942.

<sup>29</sup> Los Angeles Times, Aug. 14, 1942.

<sup>30</sup> New York Herald-Tribune, May 21, 1942.

Service to help harvest Connecticut's fruit crops. They received physical education credit for the work.<sup>31</sup>

The use of older children as casual workers brings up a number of points. They have not the strength of grown men and are usually inexperienced in the rigors of farm work. If utilized at work which is too demanding physically or under conditions which are unhealthful, they can be seriously injured. Children kept away from school for some time find it quite difficult to catch up and may have to pay with an extra semester of study for a few extra days of farm labor. Where these workers are camped in farming areas and live together as a group, proper leadership is essential to keep up their morale and assure that they will approach their work in the proper frame of mind. Tact and understanding must mark the farmer's relationships with such younger workers, and he must be willing to accept work which is not quite up to the standard he expected of mature, experienced laborers in time of peace. The considerations mentioned here indicate some of the difficulties involved in using such workers, nevertheless they form an enormous reservoir of labor which can be of the utmost value if mobilized and lead correctly.

Large numbers of urban people can usually be persuaded to help out in the fields when extra labor is needed, and in times of emergency entire communities can be mobilized to help nearby farmers. Workers unemployed because of war dislocation or the seasonal nature of their usual occupations are often willing to earn extra money and take a vacation in the country by working as farm laborers. The relatively small amount of skill needed for much casual farm work greatly facilitates the employment of such urbanites. In New York City the employment service recruited 3,000 unemployed last summer and sent them to help growers in New York and New Jersey.<sup>32</sup> Housewives and other urban women are often willing to volunteer to help with farm work. In California, the American Womens Volunteer Service organized five camps holding 1,000 women harvest workers from the cities who helped greatly in gathering the apricot and other fruit crops.<sup>33</sup> Near Clarksville, Texas, last June rain jeopardized a valuable pea crop at harvest time. The whole town shut down shop and turned out to save

<sup>31</sup> New York Times, Aug. 29, 1942.

<sup>32</sup> New York Times, July 3, 1942.

<sup>33</sup> Ibid., Aug. 6, 1942.

the peas.<sup>34</sup> In August 1941 Salem, Oregon, contributed hundreds of clerks, salesmen and other town dwellers to help harvest the Willamette Valley hop, fruit, and vegetable crops.<sup>35</sup> Such instances could be multiplied.

There are problems involved in getting and using urban adults for farm work when they are unaccustomed to it. A well planned educational program is required to publicize the situation and put forward incentives for volunteers. Patriotism is an excellent incentive for many with leisure time, but for others an increased wage scale is more effective and should be used if possible. For many a small community in farming areas, economic welfare is linked up with the economic fortunes of the nearby farmers who trade in the town. It is not difficult to persuade those who live in these communities to help out when farmers face crop loss. On the other hand, urban workers usually know little about farm work; are not physically fit; and frequently are unaccustomed to hard physical labor. Here again tact and care are needed in dealing with workers. Farmers must be patient, willing to explain simple operations time and again, and accept rates of speed and standards of work which are inferior to those they have been accustomed to. This must be done for without large numbers of additional urban harvesters many a crop will be lost in this country.

A number of other possible sources of casual farm labor may be considered briefly, particularly troops, prisoners in jail for minor crimes, and prisoners of war. Secretary Stimson has indicated his opposition to the use of soldiers on the ground they need all their time to prepare for battle. Other countries have used troops for brief periods of farm labor and if our shortage of agricultural workers becomes acute enough we may be forced to use them too. Maryland experimented with paroling prisoners for farm work this past summer, but it seems unlikely that much help can come from this direction.<sup>36</sup> In the months to come the United States will probably be called upon to house and feed large numbers of captured enemy troops. If this occurs it may be possible to use them for some types of farm work as has been done extensively in Germany and on a small scale in England.

<sup>34</sup> Time, June 15, 1942, p. 13.

<sup>35</sup> J. J. Corson, *Finding Workers for America's Farm, Marketing Activities*, February, 1942, p. 6.

<sup>36</sup> Baltimore Sun, Aug. 20, 1942.

Despite all measures that can be taken, an increasing number of areas in the future may be expected to find themselves without adequate available local labor. These situations will increase as more and more migratory farm workers find themselves immobilized by gas and tire rationing and other war shortages. All this necessitates organized action to transport workers from areas having more abundant manpower to the localities needing labor. This may even require importing workers from Canada or Mexico. Fortunately transporting farm workers is not a new experience for our government agencies. In the spring of 1941, for instance, the Farm Security Administration and the Oregon and California Employment Services arranged for the movement of 3,000 strawberry pickers from California to Oregon with growers in the latter state footing the bill for the gasoline needed to get the workers' cars and trucks north.<sup>37</sup>

This past crop season saw the beginnings of organized action to transport farm workers. Maryland, hit by the inability of southern migrants to get to her farms, set up a fund with contributions from the State and the Eastern Shore Counties for the purpose of paying for farm laborers' transportation.<sup>38</sup> August saw the first national machinery formed to provide such transportation, but it was on a small scale with only a \$500,000 appropriation from the President's emergency funds to sustain it. The program called for cooperation between the Employment Service and the Farm Security Administration, with the former indicating areas of labor shortage and recruiting workers elsewhere, and the latter transporting the workers by common carrier to where they were needed. Workers brought from less than 200 miles away have their fares paid for by their farmer employers, while the government provides transportation for those coming from more distant points. Actual operation of this scheme was not scheduled to begin until September and it was intended chiefly to serve areas in the Southwest and the Eastern Seaboard in 1942.<sup>39</sup>

A United States-Mexico agreement in August laid the foundations for bringing Mexican workers into the United States for farm work. The roles of the Employment Service and the Farm Security Administration with respect to certifying the need for such workers

<sup>37</sup> Tolan Committee Hearings, part 28, p. 10,753.

<sup>38</sup> Baltimore Sun, Aug. 12, 1942.

<sup>39</sup> Department of Agriculture Press Release, Aug. 30, 1942.

and transporting them are the same as in the case of domestic workers.<sup>40</sup> A report in early September indicated that it was intended to bring 5,000 Mexicans into this country this year, most of them to be employed in California on the sugar beet crop.<sup>41</sup>

The transportation arrangements indicated above have an obvious importance in meeting farm labor shortages, but they have other implications which are worth attention. These implications arise from the conditions imposed by the government as prerequisites before domestic or Mexican workers will be transported to any farmer. The most important of these may be summarized:

1. Workers transported must not be used to depress local labor standards. They must be paid prevailing wages, with a minimum of 30 cents an hour. Wage boards—consisting of War Manpower Commission and Department of Agriculture representatives—will determine prevailing wages by public hearings.
2. Workers brought in are guaranteed employment for at least 75 per cent of the working time during the contract period.
3. Housing and sanitary facilities satisfactory to the Farm Security Administration must be provided before workers will be transported.

With the exception of the labor provisions of present sugar control legislation, these conditions are the first steps to protect agricultural workers taken in the past decade. The 30 cents an hour minimum wage is an influence tending to bring farm workers some of the wage increasing aid given urban laborers by the Fair Labor Standards Act. On July 1 of this year, there were eighteen states whose hourly wage rates without board—calculated on the assumption of a ten hour day—were less than 30 cents.<sup>42</sup> The condition calling for guaranteed employment ensures that farmers and their organizations will not ask for outside workers lightly, since bringing them in entails a financial obligation equal to the workers' pay for three-quarters of their contract period. Although efforts have been made to improve farm workers' living conditions through state legislation and by building Farm Security Administration camps, this prerequisite may be much more effective in encouraging such improvement on a national scale as more and more areas require imported workers. Finally, the provision that wage boards

<sup>40</sup> Office of War Information Press Release, Aug. 7, 1942.

<sup>41</sup> New York Times, Sept. 1, 1942.

<sup>42</sup> Bureau of Agricultural Economics, Farm Labor Report, July, 1942.

be set up to determine prevailing wages in each locality is an approach to the English system whereby agricultural wages are fixed in each locality.<sup>43</sup> The boards set up here are merely fact finding bodies, of course, but if farm worker shortages become sufficiently severe, the role of these boards may be changed to give them greater power over wages and prerequisites.

Undoubtedly, the localities which will request workers are those in which farmer competition for labor is most likely to have already raised wages above the minimum set in these conditions, and to have otherwise improved facilities offered farm workers. Yet, from a longer range point of view, the very imposition of these conditions is important since it indicates a consideration for agricultural labor interests which has rarely been shown before. The Wage and Hour Act, the Social Security Act, the Wagner Act, and most other legislation aiding workers all specifically exclude farm labor from their scope. The changed attitude shown by the conditions listed above may perhaps be instrumental in extending other government benefits to farm workers. It is interesting to note that raising farm wages and improving farm housing for workers have been important features of Great Britain's war time agricultural labor policy.<sup>44</sup>

To sum up: Depletion of usual farm labor sources requires public action to mobilize new groups for agricultural work and to ensure adequate transportation for available help. This can best be done by a well organized employment service which has the cooperation and confidence of both farmers and workers. High school and college students, women, and older men will become more and more the major elements of the hired labor group, and both farmer thinking and government policy must be adjusted to this fact. In seeking additional workers, the incentive of patriotism may be used legitimately and fruitfully, but it is much more likely to be successful if farmers have increased wage rates and improved housing and sanitary facilities they can offer workers. A beginning has been made in setting up a mechanism for transporting farm workers throughout the country—as well as for bringing them in from Mexico if needed—but the rigid prerequisites required for use of this mechanism, as well as the small appropriation available for this work, make it a minor force as yet.

<sup>43</sup> Cf. M. R. Benedict, The British Program for Farm Labor—as a Contribution to American Thinking on the Subject, *JOUR FARM ECON.*, Nov. 1940, pp. 714-728.

<sup>44</sup> Montell Ogden, Wartime Agriculture and Post-War Objectives, *Foreign Agriculture*, January 1942, and The British Farmer at War, pamphlet published by H.M. Stationery Office, Nov. 1941.

American agriculture—in common with the rest of this nation—faces its most difficult tasks in the war years ahead. The farm labor aspects of these tasks can and will be met successfully if the problems which arise are handled with intelligence and with a willingness to discard old prejudices as to the status and importance of agricultural workers.

### *Recent Developments*

Between the completion of this article in early September and the receipt of galley proofs in mid-October, three major developments occurred which affect farm labor in the war effort. These may be reviewed briefly:

First, as the harvest season began for 1942's record crops, the first general impact of the reduction in the usual supply of casual labor was felt in all parts of the nation. Department of Agriculture data indicated that the available supply of farm workers on October 1 was the lowest on record. The nine per cent rise of farm wages between July 1 and October 1 was further evidence of the increasing stringency.<sup>45</sup> From all parts of the country came reports of school and college students, and of townspeople going to the fields in thousands to help gather America's food and fiber.

Second, the Price Stabilization Bill of 1942, passed in early October, tied farm wages directly to the problem of preventing inflationary increases in agricultural prices. It requires that rises in farm wages be considered before farm commodity ceilings are set. Presumably, therefore, farm wages will have to be stabilized to keep farm prices steady. On October 16, Price Stabilization Director Byrnes ordered the Department of Agriculture to set up an organization to control farm wages.<sup>46</sup>

Third, the beginnings of a comprehensive manpower policy began to be evident. Secretary Stimson's announcement of a 7,500,000 man army by the end of 1943 gave manpower planners a basic figure to work from. The "freeze" of non-ferrous metal miners in twelve western states and the closing of gold mines to secure additional labor both pointed to increased government determination to secure labor where it is needed, no matter how drastic the steps required. Passage of the bill to pass 18 and 19 year old youths gave further evidence of this determination but also threatened seriously to deplete one of the most important remaining sources of farm

<sup>45</sup> Bureau of Agricultural Economics, *Farm Labor Report*, October, 1942.

<sup>46</sup> *New York Times*, October 17, 1942.

workers. Secretary Wickard, in announcing the 1943 winter vegetable goals, indicated that labor and other essentials would be provided only for necessary crops in the future, so as to ensure maximum food production with the limited resources available.<sup>47</sup>

The final pattern of manpower control cannot be foreseen at this writing, but conceivably it may include deferments and "freezes" for experienced farmers and farm hands. If the shortage of workers becomes sufficiently severe, a National Service Act may provide some mechanism for compulsory labor on farms and in essential industries. These devices represent a considerable departure from what we have come to consider the democratic way of life, but they have been invaluable in England, a sister Democracy. These are not the greatest sacrifices we shall have to bear before victory is achieved.

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<sup>47</sup> *Ibid.*, October 14, 1942.

## CONTROL OF CONSUMPTION IN BRITAIN

BUFORD BRANDIS

*Federal Reserve Bank of Atlanta*

DURING the first two years of the war the British worked out a comprehensive system for controlling the production and distribution of consumers' goods. In the first year of American participation in the war, the problems of civilian rationing earlier faced by the British are arising in this country.

There is much in the British experience that should be of aid to us in controlling civilian consumption. It is the purpose of this paper to examine that experience with particular reference to the period from September 1939 to September 1941 when lend-lease aid from the United States was either nonexistent or unimportant in volume.

Throughout the period the most critical consumer item was food. The Government attempted to increase the output of domestic agricultural products in many ways. In addition, rationing devices were used to alter the average diet and to reduce the total consumption of food in the nation. In this program the Ministry of Food and the Ministry of Agriculture cooperated. An extremely important and unpredictable factor in their operations was always the shipping shortage and the consequent necessity of using to the best advantage the limited supply of shipping space available for the importation of foodstuffs. This problem involved such decisions as whether it was wiser to import feeding stuffs for cattle and fatten the cattle in Britain or, on the contrary, to import frozen beef in the first instance.

Soon after the outbreak of war in September 1939 the Government rescinded the subsidies designed to encourage the curtailment of domestic agricultural output that had been paid since the early depression days. These subsidies were part of the depression program to raise prices.<sup>1</sup>

A subsidy program was substituted, designed to encourage farmers to plow grass land for crops. The farmers were assured that prices would be fixed for the 1940 harvest at such levels as to make it profitable for them to grow crops rather than to use the land as pasture.<sup>2</sup> This subsidy program met with considerable success, some two million additional acres being turned to crops in 1940.<sup>3</sup>

<sup>1</sup> *Economist Commercial History and Review of 1939*, February 17, 1940, p. 4.

<sup>2</sup> *Economist*, October 28, 1939, p. 124.

<sup>3</sup> *The Times*, April 18, 1940, p. 8.

The Agricultural Development Act of 1939, which established the subsidy for plowing up grass land, was designed to bring about the plowing of 1.5 million acres in England and Wales and 500,000 acres in Scotland and Northern Ireland.<sup>4</sup> By the autumn of 1941 there were 16 million acres of land under cultivation in Britain as compared with about 12 million acres prior to the outbreak of war.<sup>5</sup>

Interesting conflicts among groups interested in land use developed during the plowing-up campaign. Local committees on war agriculture and on education argued about the use of playing fields, for instance. The first wanted to plow them up while the other group wished to use such fields in the physical training program.<sup>6</sup>

According to Mr. Lloyd George, despite the considerable increase in land under plow as a result of the plowing-up campaign, output increased only slightly in 1940, because of labor, machinery, and fertilizer shortages.<sup>7</sup> The serious nature of the food supply problem is indicated by the fact that some 6.75 million additional people had to be fed from an area of arable land 4.5 million acres less than in World War I.<sup>8</sup> Plowing up of an additional 2 million acres was visualized at the end of the period under review and a record food yield for 1941 was in the offing.<sup>9</sup>

The Government policy for agriculture during the war was definitively blocked out in November 1940. At that time it was announced that fixed prices and guaranteed markets would be maintained for agricultural products throughout the war and for at least one year thereafter. Furthermore, a priority system for agricultural products was laid down. First, the emphasis was to be given to food for people and dual purpose foods that could either be eaten or fed to animals. Also given preference were those nutritional foods, such as milk or potatoes, recommended by the Government's scientific committee advising on food policies.<sup>10</sup>

The county war agriculture committees did not very often use their power to take over land being badly farmed. They were very lenient in this regard according to the Select Committee on National Expenditure. The county war agriculture committees relied

<sup>4</sup> Monthly Labor Review, May 1940, p. 1110.

<sup>5</sup> New York Times, October 27, 1941, p. 29.

<sup>6</sup> *Economist*, January 4, 1941, p. 3.

<sup>7</sup> *Economist*, April 12, 1941, p. 482.

<sup>8</sup> *Ibid.*

<sup>9</sup> *Financial News*, July 4, 1941, p. 2.

<sup>10</sup> *Economist*, March 29, 1941, p. 402.

almost entirely upon financial inducements as a means of securing the farmers' cooperation in the national agricultural policy.<sup>11</sup>

In establishing the administrative organization for the encouragement of domestic agricultural production the Government relied heavily upon its experience in World War I. Upon the outbreak of war in September 1939 the Ministry of Agriculture was directed to increase the output of British farms. The Ministry delegated its control over the utilization of crops, over the planting of crops, and over the cultivation of land to the county war agriculture executive committees which were similar to those established in World War I. Indeed, the Government had selected the personnel of these committees some time before the outbreak of war. To the county committees was given the task of supervising the plowing-up campaign and certifying in this connection that the land had been plowed up and that the owner was, therefore, entitled to receive the subsidy. These committees were also given control over the local supply of tractors owned by the Ministry of Agriculture and it was the duty of the committees to vary in accordance with local conditions the general cropping rules for the use of newly plowed land. They also acted as general liaison groups between the Ministry of Agriculture and local farmers in all types of questions.<sup>12</sup> It was their responsibility to recommend to the Ministry of Agriculture the repair of farm buildings and plants wrecked in military operations.<sup>13</sup> The county war agriculture committees attempted to work out with liaison officers from the leading banks the credit problems of farmers in the locality. This scheme was directed toward removing credit difficulties in the way of increased output.<sup>14</sup>

While the Ministry of Agriculture took charge of the attempt to increase domestic production of food, a new organization—the Ministry of Food—was established to take care of the importation and rationing of foodstuffs.<sup>15</sup>

Normally, foodstuffs represent 45 per cent of total British imports. Upon the outbreak of war the Ministry of Food began to import virtually all of this volume on its own account. Apparently, skillful buying on the part of the Ministry's agents in world markets made possible by the Ministry's dominant position as a buyer,

<sup>11</sup> *Ibid.*

<sup>12</sup> *Economist*, March 2, 1940, p. 367.

<sup>13</sup> *The Times*, October 19, 1940, p. 2.

<sup>14</sup> *The Times*, October 23, 1940, p. 9.

<sup>15</sup> This division of responsibility later caused many difficulties it is alleged by the *New Statesman and Nation*, February 3, 1940, pp. 128, 129.

saved the British public a great amount of money in food costs and saved the British economy as a whole much foreign exchange. An indication of this is the fact that in the early months of the war imported wheat more than doubled in price in Belgium where such Government control was lacking whereas no such prices had to be paid by the British.<sup>16</sup>

The Ministry of Food used various devices in controlling supplies and rationing them among consumers. For instance, encouragement of the production of carrots and onions and the control of the distribution of those commodities was carried on by an extra-departmental vegetable marketing company. This company was established in April 1941 and represented a break with the more usual practice of operating such controls through marketing boards in the Ministry of Food.<sup>17</sup> On the other hand, the Ministry of Food utilized a private brokerage firm in controlling pepper. When, at the end of August 1941, the Ministry of Food decided to take over the importation of pepper, it selected a private brokerage firm to act as agent for importing and reselling pepper. This particular firm was selected in consultation with the Brokers' Association. Brokerage fees earned by this firm in handling the account of the Ministry of Food were divided between other members of the pepper brokers' pool. Such arrangements accomplished the dual purpose of securing the marketing of pepper without establishing duplicate marketing facilities and, at the same time, through the national pooling arrangement, made possible the continuance and maintenance of the private pepper market organization for use when the wartime control is abandoned.<sup>18</sup>

Although in many other cases attempts have been made at considerable expense by the British Government and at some cost in efficiency as well to maintain relatively intact the pre-war private distributing and marketing organizations, in some instances this policy has not been followed. When the Ministry of Food became sole purchaser of domestically produced meat as well as the sole importer of foreign meat, it reduced the number of slaughter houses in the country and centralized the slaughtering operations in the larger houses on the grounds of administrative simplicity and the savings thus made possible in handling meat by-products.<sup>19</sup>

<sup>16</sup> *The Times*, February 15, 1940, pp. 9 and 10.

<sup>17</sup> *Economist*, April 19, 1941, p. 521.

<sup>18</sup> *Economist*, September 13, 1941, p. 336.

<sup>19</sup> *Economist*, January 13, 1940, p. 76.

Both straight commodity rationing and point rationing have been utilized by the Ministry of Food in controlling the final consumption of foodstuffs. Under straight commodity rationing plans applicable to beef, bacon, fats, sugar, tea, and preserves, each customer was issued a ration card divided into coupons which the store-keeper must detach when selling the rationed commodity. In order to avoid the difficulty of counting and exchanging coupons at the wholesale level each retailer for all of the above commodities except tea was allotted stocks on the basis of the number of consumers attached to his store and each consumer was allowed to buy only at the store of his original choice. In the case of tea, however, consumers were permitted to buy at any store at any time as long as they had ration coupons.<sup>20</sup>

Other foods were rationed on a point basis. The foods included different varieties of canned beef, canned fish, canned vegetables, dried fruits, rice, sago, tapioca, and dried peas, beans, and lentils. In any four-week period the consumer was allowed to use twenty points. He could purchase any of the listed foods with his points according to his own choice. The allocation of points to different foods, that is to say the pricing of the listed foods in terms of points, was done in accordance with the relationships of supply and demand and to some smaller extent consideration was given to the relative nutritional value of the particular food.<sup>21</sup> The Ministry of Food made sure that the original supplier of foods on the point-rationed list sells to wholesalers and retailers only in exchange for coupons by licensing the manufacturer or processor and threatening him with revocation of the license if he sells without collecting coupons from the wholesaler or retailer involved.<sup>22</sup> The ministry is itself the original supplier of all imported foods.

Ordinarily, of course, increased industrial activity resulting in increased employment would bring about large rises in food consumption. Between 1935 and 1938, for instance, retail food sales rose 8 per cent while the retained imports of food, drink, and tobacco increased 6 per cent.<sup>23</sup> During the war, however, it has been necessary to cut food consumption drastically because of the shipping situation. It is difficult to estimate exactly how much the

<sup>20</sup> E. M. H. Lloyd, Some Notes on Point Rationing. *The Review of Economic Statistics*, May 1942, p. 40.

<sup>21</sup> *Ibid.*

<sup>22</sup> *Ibid.*, p. 50.

<sup>23</sup> *Economist*, December 16, 1939, p. 430.

consumption of food has fallen in Britain but available estimates indicate a substantial reduction.<sup>24</sup> In addition, of course, wide shifts in diet took place during the period.

In the spring of 1940 the British began to restrict civilian consumption of textiles.<sup>25</sup> Limitation of supply orders was the device used. The amount of wool allocated for manufacture into civilian goods was reduced and this order was shortly followed by a Board of Trade order requiring the manufacturers of cotton and rayon piece goods to reduce their sales to retailers during the period April 16 to September 30, 1940, to 75 per cent of sales during the six months ending September 30, 1939. This same order provided for a reduction of manufacturers' sales of linen piece goods to 25 per cent of sales in the corresponding period of the previous year.<sup>26</sup>

In June 1940 the Board of Trade extended this method of control of output to a long list of civilian goods (not including foodstuffs, however), providing that their sale to retailers from June 6 to November 30, 1940, be restricted to 66.67 per cent, by value, of the amount sold to retailers in the six months ending on May 31, 1940.<sup>27</sup>

Silk was treated similarly. The Limitation of Supplies (Woven Textiles) (No. 2) Order limited to 25 per cent of the amount sold to retailers in the six months ending on March 31, 1940, the deliveries of silks, woven piece goods, and made-up goods. This applied to the period October 1, 1940, through March 31, 1941.<sup>28</sup> October 1940 also saw the issuance of the Control of Silk (No. 5) Order which provided for a comprehensive licensing control of the use of raw silk.<sup>29</sup>

In the half-year from December 1, 1940, through May 31, 1941, the long list of civilian consumption goods (excluding foodstuffs) referred to above was extended, and most of the quotas reduced still further.<sup>30</sup> It should be remembered that the actual physical volume of goods subject to these orders delivered to retailers by

<sup>24</sup> The Oxford Institute of Statistics has estimated that in the first 18 months of the war per capita consumption of food fell by at least 3 to 8 per cent. (*The Times*, July 24, 1941, p. 8.) Alfred Maizels has estimated that in the first year of the war the volume of food consumed per head by the civilian population fell between 12.5 and 17.5 per cent. ("Consumption, Investment and National Expenditure in Wartime," *Economica*, May 1941, p. 155.)

<sup>25</sup> *The Times*, April 18, 1940, p. 11.

<sup>26</sup> *Economist*, April 20, 1940, p. 724.

<sup>27</sup> *Economist*, November 23, 1940, p. 648.

<sup>28</sup> *Economist*, October 19, 1940, p. 500.

<sup>29</sup> *Ibid.*

<sup>30</sup> *Economist*, November 23, 1940, p. 648.

manufacturers was less than the percentage reduction in value terms would lead one to expect. This follows from the fact that the prices of most of these commodities had risen substantially since the base period.

As the war went on there was a progressive reduction of quotas under the limitation of supply orders necessitated by the growing shipping shortage and the need for more workers, materials, and factory capacity for the armament industries proper. Thus the quota for cotton piece goods and made-up goods, having been set at 75 per cent of the base period, for the six months ending September 30, 1940, was reduced to 37.5 per cent for the six months ending March 31, 1941, and to 20 per cent for the six months ending September 30, 1941. Similarly, the quota for rayon piece goods and made-up goods was 75 per cent of the base figure in the six months ending September 30, 1940, 66.67 per cent in the period ending March 31, 1941, and 40 per cent in the period ending September 30, 1941. For piece goods and made-up goods made of linen, the quota was set at 25 per cent of the base figure for the periods ending September 30, 1940, and March 31, 1941, and at 20 per cent in the half-year ending September 30, 1941.<sup>31</sup>

More detailed examination of the mechanics of the Limitation of Supplies (Miscellaneous) (No. 5) Order will serve to illustrate how the system functioned: First of all, all manufacturers and wholesalers dealing in the controlled commodities were required to register that fact with the Government. The manufacturer or wholesaler had then in the ensuing six-months period to confine his sales of the controlled commodity to the prescribed percentage of the figure for the base period. It was a limitation in the aggregate; that is to say, the registered manufacturer or wholesaler was not required to reduce his sales to each individual customer by the same percentage but only to achieve an aggregate over-all reduction commensurate with his responsibilities under the order. The order established no restrictions upon the flow of the controlled goods between various wholesale suppliers and also permitted the registered persons to transfer their quotas from one to the other, with the approval of the Board of Trade.<sup>32</sup>

When the controlled goods had to be used in execution of Government contracts, they could be supplied without regard to the quota. If they were going into export trade, they were also exempt from

<sup>31</sup> *Economist*, February 15, 1941, p. 225.

<sup>32</sup> *Economist*, December 7, 1940, p. 712.

the quota. Minor exceptions from the order included such provisions as the one granting exemption from the quota for goods supplied to replace those lost as a result of enemy action.<sup>33</sup>

Operation of the limitation of supplies orders for textiles and other consumer goods resulted in the release of more than 100,000 workers to war industries between June 1940 and April 1941. In June 1940 about 300,000 persons were employed in the manufacture of controlled goods for the domestic markets. This had fallen by April 1941, largely as the result of the operation of the limitation of supplies orders, to 166,000.<sup>34</sup>

In the spring of 1941 the Board of Trade rationed clothing on the point system.<sup>35</sup> Later, in the summer of 1941, the Government developed a scheme for supplying minimum quality clothing to the population. The object of this plan was "to insure that specified proportions of all available material are used for the manufacture of moderately priced clothing of a minimum quality."<sup>36</sup> The utility clothing scheme provided that manufacturers of clothing might receive a special quota of a special cloth made up in accordance with the specifications the Government had designed. The prices and trading margins for this utility clothing were fixed by the Government for each stage of manufacture and distribution.<sup>37</sup>

The figures for personal expenditure on consumption in Britain in the first two years of the war do not indicate a reduction in volume of goods consumed although, of course, considerable reduction in volume of consumption did take place in the period. The following table shows the stability of aggregate expenditure on personal consumption items in the years 1940 and 1941 and also the increase in aggregate expenditure for these items over the pre-war year 1938. However, for the reasons explained in the notes to the table, it is not possible to estimate in such exact fashion the reduction in volume of consumption.

Although it is impossible for the reasons shown to estimate exactly the reduction in the volume of consumption on the basis of available figures of monetary expenditure, some indication may be had from the report of the Board of Trade Committee on Retail Trade at the end of August 1941. This committee concluded that the volume of goods available for sale through the ordinary retail

<sup>33</sup> *Ibid.*

<sup>34</sup> George V. Ormsby, *Wall Street Journal*, January 5, 1942, p. 11.

<sup>35</sup> *The Times*, June 2, 1941, p. 5.

<sup>36</sup> *Economist*, October 25, 1941, p. 515.

<sup>37</sup> *Ibid.*

TABLE I. PERSONAL EXPENDITURE\*

	1938	1940	1941
(£ million)			
Personal expenditure on consumption at market prices	4,041	4,424	4,550
Add Subsidies	15	70	139
	4,056	4,494	4,689
Deduct Indirect taxes on consumption	472	623	826
Personal consumption thus adjusted	3,584	3,871	3,863

Note: "It is necessary to estimate the percentage increase in prices similarly adjusted in order to obtain a measure of the reduction in the *volume* of personal consumption. Index numbers of the cost of living or other indices of market prices are not suitable to measure this increase, since they include some, but not nearly all, indirect taxation, exclude subsidies and do not cover by any means the whole of consumption expenditure. No satisfactory index of prices adjusted in the above sense is at present available.

"Moreover, there has been a great change since 1938 in the relative importance of different articles of consumption, and the rise in prices in 1940 and 1941 is not so substantial if articles are weighted according to the volume of their consumption in those years as if they are weighted appropriately to 1938. The measure of the reduction in the volume of consumption in 1941, compared with 1938, cannot be estimated more precisely than that it probably lies within the limits of 15 and 20 per cent according to the system of weighting which is adopted."

\* Including the expenditure on consumption of charities and other non-profit-making bodies, as well as of individuals, but excluding the expenditure of firms, companies, and institutions which are chargeable as costs.

Source: Cmd. 6347, p. 5.

trade channels had been reduced by about 50 per cent.<sup>38</sup> The Bank of England's index of retail sales of food and perishables on an average daily value basis, corrected for changes in the food component of the cost-of-living index compiled by the Ministry of Labor, moved as follows from August 1939 to August 1941.

TABLE II. INDICES OF THE VOLUME OF FOOD SALES  
(1935 = 100)

	1939	1940	1941
January	—	95	94
February	—	97	96
March	—	105½	97½
April	—	105½	99½
May	—	109½	97
June	—	99	92½
July	—	104	96½
August	109½	96	93½
September	115½	88	—
October	109	92	—
November	101½	91	—
December	117	107	—

Source: *Economist*, October 25, 1941, p. 516.

<sup>38</sup> The New Statesman and Nation, August 23, 1941, p. 174.

To some extent—particularly where foodstuffs are concerned—the reduction in consumption value has been less than the reduction in volume terms would lead one to expect. Throughout the war, the British Government has taken exceptional interest in the science of nutrition and has altered the diet of the British so as to improve the nutritional value of foods consumed per pound sterling spent.

In many cases, however, the lack of income has prevented persons purchasing even the allotted ration. The Government subsidized the prices of bread, flour, bacon, ham, milk, and cheese so as to make these basic foods more readily available to the entire population regardless of income at least up to the permitted ration.<sup>39</sup> Some 250,000 persons were allotted free milk.<sup>40</sup>

Of course, incomes too small to permit purchase of the ration raised certain problems of control because persons of lower income would sell their allotments to others.<sup>41</sup>

The British Minister of Food took advantage of recent discoveries in increasing the nutritional value of various foods. Margarine has been vitaminized and butter has been fortified when below certain standards. All white flour (3 per cent extraction) was fortified with Vitamin B 1 and calcium salts in 1941, and, in general, imports have been restricted to foods high in calorie content per ton of shipping space required.<sup>42</sup>

Relative nutritional values of foods consumed have been varied between different segments of the population on the basis of social welfare considerations. Thus children have priority on oranges and milk, and coal miners and other heavy workers have larger rations of cheese than the normal population.<sup>43</sup>

The enforcement of Food Control Orders became more of a problem as the war went on and restrictions became more drastic. While up until the end of 1940 only 10,598 persons were prosecuted for suspected violations of the Food Control Orders, prosecutions averaged more than 2,000 per month in the first eight months of 1941, as the following table shows.

<sup>39</sup> Monthly Labor Review, April 1941, p. 833.

<sup>40</sup> *Ibid.*

<sup>41</sup> This range of problems is discussed by R. S. G. Rutherford in The Consumption and Rationing of Butter and Margarine, *Oxford Economic Papers*, February 1940, pp. 131-143.

<sup>42</sup> Joseph S. Davis, Food in a World at War, *Harvard Business Review*, Winter 1941, p. 137.

<sup>43</sup> Bulletins from Britain, October 29, 1941, p. 3, and New York Times, August 11, 1941.

TABLE III. NUMBER OF FOOD PROSECUTIONS

	Prosecutions	Number Successful	Percentage Successful
Oct., 1939-Dec., 1940	10,598	10,043	94.8
1941			
January	2,073	1,979	95.4
February	1,160	1,104	95.1
March	2,141	1,994	93.1
April	2,300	2,199	95.6
May	2,537	2,410	94.9
June	2,762	2,627	95.1
July	2,846	2,679	94.1
August	2,524	2,336	92.5
Total	28,941	27,371	94.5

Source: *Economist*, October 4, 1941, p. 423.

In general, then, it can be said that the first two years of the war, control of consumption by the British Government had the effect of reducing over-all consumption considerably and changing drastically the relative amounts of consumer goods going to various segments of the population. In addition, changes in diet and in styles of clothing, etc., took place under Government direction.

Considering the growing seriousness of the shipping position since the early months of the war, it can only be concluded that the Ministry of Food, in cooperation with the Ministry of Health, has done a remarkable job of feeding the British people. After a five-months investigation in Britain, Dr. V. P. Sydenstricker reported in August 1942, that "apparently there is less malnutrition, especially among workers and children, than before the war."<sup>44</sup> Another indication of the effectiveness of the British consumption controls in distributing short supplies of food is the report of the Minister of Health that in the first seven months of 1942 there were substantial decreases in the most prevalent of infectious diseases in England and Wales, as compared with the first seven months of 1941.<sup>45</sup>

It must be pointed out, however, that the maintenance of pre-war nutritional standards in Britain and their betterment during the war was possible partly because these standards were woefully deficient in the pre-war years. As late as October 1941, after months of the wartime campaign to increase consumption of milk among

<sup>44</sup> Associated Press Dispatch from London, August 12, 1942.

<sup>45</sup> *Ibid.*

school children, about 40 per cent of all children in the British schools were not receiving milk.<sup>46</sup> Facts such as this throw into bold relief the scope for post-war improvement in British diet. Indeed, it seems quite likely that the Food Ministry's work in nutrition during the war will bear important fruit when supplies become more abundant in the post-war years.<sup>47</sup>

There can be no doubt that the over-all results of British wartime consumption controls have been excellent when the supply problems facing the British controllers are taken into account. Nevertheless, there have been many instances of speculation in foodstuffs and other consumer commodities. Profiteering has gone on in the black markets. The British controls have had to contend, as well, with many moral evasions which are not actually violations of the formal regulations. An instance of this was the attempt of retailers of other goods to register as food retailers so that they might be able to buy food for themselves and their families on wholesale terms.<sup>48</sup>

The British experience illustrates many important principles of consumption controls in wartime. Perhaps the basic principle illustrated is this: people will accept cheerfully reductions in their standard of life provided they believe that the reductions are necessary for the successful prosecution of the war and are shared equally by all the people.

Consumption controls, both rationing and price fixing, should be introduced early rather than late. This makes the problem easier and avoids unnecessary confusion. The correct principles of control might be summarized as promptness, efficiency, and impartiality.

<sup>46</sup> *Economist*, October 25, 1941, p. 501.

<sup>47</sup> For a discussion of the post-war possibilities see: Food control in Great Britain, International Labour Office Studies and Reports, Series B (Economic Conditions) No. 35 (Montreal: 1942).

<sup>48</sup> *Economist*, July 26, 1941, p. 103.

## TRENDS IN AGRICULTURAL COOPERATION

E. A. STOKDYK<sup>1</sup>

*Berkeley Bank for Cooperatives*

**T**WENTY-FIVE years ago many of the leaders in the field of agricultural economics were devoting a considerable portion, if not all, of their attention to the field of agricultural cooperation.

The early literature contains important contributions by J. D. Black, H. E. Erdman, B. H. Hibbard, W. E. Grimes, E. G. Nourse, Theodore Macklin, and others too numerous to mention. These same persons frequently advised and counselled with associations, then in their formative stages, which are today celebrating their 25th anniversary. To some they served as godfather or even as midwife. The precedent they established persists. As a matter of fact, there are few associations organized today that have not had the advice, counsel, or assistance of an agricultural economist—even though he may carry another title.

During this quarter of a century a number of factors have had a profound influence on farmers' business associations. Aside from the upheavals in the general economic environment which affected all business enterprises, governmental policy toward farmers' cooperatives has been the outstanding factor.

Congressional legislation establishing the Division of Cooperative Marketing, grants in aid to the Land Grant colleges, the Federal Farm Board, the Federal Land Banks, the Intermediate Credit Banks, the Production Credit System, the Banks for Cooperatives, the Cooperative Division of the Farm Security Administration, certain tax exemptions, and some exemptions from the Sherman Act are all landmarks to the agricultural cooperative system. Some of you who worked in the cooperative field two decades ago will recall that at that time suits were brought against County Farm Advisors for the misuse of County funds when they assisted farmers in organizing cooperatives. What a contrast with the situation now! One may reasonably ask: "Why?"

If there is one single answer it is because cooperatives, when efficiently operated, benefit both producers and consumers by narrowing margins and improving services.

Throughout the 25-year period, however, there have been marked

<sup>1</sup> A paper presented at the Western Farm Economics Conference, June 25, 1942, Palo Alto, California.

changes in philosophies and policies both within the movement and officially as to the economic function of cooperatives, particularly of marketing cooperatives.

The first philosophy is that cooperatives are developed to lower costs, to improve quality, to render better service, and to increase farmers' bargaining power.

The second philosophy is that cooperatives, by obtaining control of a large proportion of the total volume of a given commodity, can and should influence market prices to such an extent that most of the producers can make satisfactory profits.

The first attempts in cooperative activity were local in character but as these grew in strength and number they exerted a profound influence on local margins and prices. From this experience a movement grew to enter the terminal markets to do something about wholesale prices. Terminal cooperative associations were bitterly fought and even boycotted by the trade but in the end established themselves successfully. They corrected many unethical trade practices, and where they had sufficient volume, demonstrated considerable bargaining power. This experience in turn led to the theory that if all or most of the volume of a given product were in the hands of a cooperative, prices could be controlled.

The control philosophy received considerable impetus in the early 20's when the producers of the staple crops were suffering from sharp price declines, while the producers of numerous specialty crops were enjoying rather prosperous times. The fact that a number of the specialty crops were marketed by producers' associations with a considerable degree of control with the members bound to the association by rigid contracts was seized upon as the logical method to deal with the staple crops under the belief that such organizations could control prices.

Agricultural economists pointed out the fallacy of the underlying assumption but their advice was unheeded and the monopoly philosophy had its day. From Maine to Florida, from Texas to North Dakota, farmers were organized into large-scale potato, tobacco, cotton and wheat cooperatives. Their struggles are a matter of history. What confused many persons was that many specialty crops are sold in a monopolistic type of market rather than in a competitive market as are the staples. Opening prices for specialty crops are set by the board of directors and the managers of cooperatives, but prices are and must be set in line with supply

and demand conditions if the crop is to move. Furthermore, as had been demonstrated, perishables can be more efficiently distributed throughout market areas under the direction of a single agency than by competitive shippers. Besides, associations of producers of specialty crops have been able to increase the demand for them through carefully planned advertising and trade promotion programs.

In spite of the failures of a number of the large scale stable cooperatives, the philosophy of monopoly control for the staples persisted, and in 1929 when something just had to be done for agriculture, Congress established the Federal Farm Board, which crystallized the monopoly philosophy into law and gave the Farm Board funds to give it a trial. I know from discussions with some of the members of the Board that they had little faith in the program, but they were directed to make the attempt so did their best to try it out.

Several large-scale National associations were formed, among them the Farmers National Grain Corporation, the National Fruit and Vegetable Marketing Association and the American Cotton Cooperative Association. Government funds were furnished in liberal amounts and a real effort was made to avert the worldwide price declines.

But the cooperatives, even with liberal Government credit, could not stem the tide. What membership capital they had was soon depleted. They were given every assistance possible. The programs of the Board were worked through them. In fact, at one time there were two market prices for wheat, one through cooperative and the other through private channels at from 15 to 17 cents a bushel lower.

With the demise of the Farm Board and the assumption of its lending functions by the Farm Credit Administration in May 1933, the era of monopoly cooperation officially came to an abrupt end.

This meant an about-face in the policies and procedure of many associations and the liquidation of a number of them. Back to the original philosophy of lower costs, improved quality and improved service they were forcibly turned. Some accepted it with reluctance and others with enthusiasm. The dying gasps of the large-scale nationals haunted Washington for a number of years—but in the meantime from 1933 on, the rebuilding of cooperative enterprises began through the assistance of the state colleges, the Cooperative

Research and Service Division of the Farm Credit Administration and the Banks for Cooperatives on the basis of membership capitalization and responsibility with limited objectives.

This was a significant reversal for the cooperative movement. During the heyday of the large-scale nationals, members or prospective members were often informed: "When you endorse your check in payment for your product you become a member. If everything turns out satisfactorily you get a patronage dividend; if not, you will not lose because the association is supported financially by the Government." But since then, the Banks for Cooperatives tell members and prospective members, "You are expected to furnish between 40 and 50 per cent of the original capital necessary to finance the fixed assets, and from 20 to 50 per cent of the necessary working capital." In other words, they are asked to pass judgment on the feasibility of a cooperative enterprise through a substantial financial interest and to accept the responsibility for its management and control.

What has happened since then? It is almost a decade since the crescendo of monopoly cooperation reached its climax.

Since 1933 the number of cooperative marketing associations in the United States has declined slightly. However, the number of members has increased slightly and the volume of business has increased considerably when measured in dollars but only slightly when measured in physical units. The last census shows that 13.6 per cent of all farms in the United States were selling through cooperatives in 1939, compared with 11.0 per cent in 1929.<sup>2</sup>

On the other hand the cooperative purchasing of farm supplies has increased by leaps and bounds.

Not only did the number of associations classed as cooperative purchasing organizations increase but many of the marketing associations undertook the handling of farm supplies. The 1940 Census further shows that 12.2 per cent of all farms were buying supplies through cooperatives in 1939 compared with 6.5 per cent in 1929.

Reliable estimates<sup>3</sup> recently made indicate that the value of supplies purchased cooperatively by farmers in 1929 approximated 125 million dollars, while in 1940 the total was 375 million dollars.

<sup>2</sup> For detailed statistics on cooperative marketing see: Cooperative Marketing by Farmers. 1940 Yearbook of Agriculture, pp. 684-705.

<sup>3</sup> Joseph G. Knapp, The Rise of Cooperative Purchasing. Paper before the American Institute of Cooperation, Athens, Georgia, Jan. 14, 1942. Mimeo.

The farm supply bill runs into big figures annually. For feed, fertilizer, farm machinery, trucks, tractors, automobiles and the expenses of operating automotive equipment, it approximates 2.5 billion dollars.<sup>4</sup>

A significant development in cooperative purchasing is the integration of activities among locals and even large-scale regional associations to the extent of developing sources of raw materials, manufacturing, and distributing them. For example, a large-scale regional cooperative purchasing association in the Middle West erected oil refineries and pipelines in 1939, and in 1940 formed a cooperative oil producing association which has brought in seven wells. Similarly, a number of associations have built feed mills, fertilizer factories and paint blending plants.

We may expect to see a continued rapid growth in the cooperative purchasing of farm supplies, first because numerous marketing associations are adding supply departments; second, because the experience gained by the existing associations is being coordinated through regional and national supply associations; and third, because the purchasing associations are now eligible to borrow through the Farm Credit Agencies for all purposes including the acquisition of facilities, which was not the case prior to 1935.

A third field of cooperative activity which has expanded rapidly in the last decade is that of farm business services. These include mutual fire insurance companies, mutual telephone companies, cooperative hauling associations, electrification associations, cotton ginneries, fruit and vegetable dehydrators, pest control associations and other similar special service cooperatives. Data are not available prior to 1939 on the extent of these activities. However, in that year the census of 1940 reports 11.7 per cent of all farms obtaining business services through cooperatives.

Mutual irrigation associations or water companies remain about stationary in volume of business, number of members and territory served. They are one of the oldest forms of cooperative activity among farmers—many having operated for a period of 50 years or more and are among the most substantial and successful of farmers' organizations.

A fourth field of cooperative activity which has expanded rapidly is that of cooperative credit. The Federal Land Bank system showed an increase in loans outstanding from slightly more than

<sup>4</sup> Joseph G. Knapp, *Op. cit.*, page 5.

one billion dollars in 1933 to more than two billion dollars in 1935. The basic reasons therefore and the agricultural credit situation in general are well known to all of you. Recent developments and the statistics of the activity in cooperative credit, however, may be of some interest.

Since 1933 the financing of production credit through production credit associations has been established. These associations numbered 529 in 1940 with a volume of business totaling 350 million dollars in that year. They have done one of the most outstanding and constructive jobs in the business of agriculture. As a result of the activities of these associations many farmers in many areas for the first time were able to break loose from store or dealer credit with its excessive rates. At the same time, farmers were taught better business methods and farm management procedures through the association's insistence upon budgeting of operations and advancing funds to borrowers on the basis of the budget.

The Banks for Cooperatives extended credit to farmers' cooperative marketing and purchasing associations and farm business service organizations in the amount of 126 million dollars in 1940. These Banks themselves have some cooperative features in that borrowers are required to own stock in the Bank in proportion to the amount of the loans they obtain—depending on the type of loans. Also the borrowers elect one member to each of the twelve District Farm Credit Boards.

So much for the statistical trends.

Within the cooperative movement there are a number of trends that are worthy of comment.

The first is a marked increase in membership responsibility and understanding of their businesss. This has developed hand in hand with a substantial increase in the members' capital equities in their associations.

Second, the net worth of most associations has increased materially. This has been in no small part due to the Banks for Cooperatives' insistence that borrowers adopt a definite plan of capitalization and build an adequate capital structure.

Third, the business methods and procedures have shown a substantial improvement through the installation of adequate accounting systems and the procurement of comprehensive and analytical audit reports.

Next, the legal structure of numerous associations has been

strengthened through amendments and in some cases complete reorganization. In many cases changes were necessary to comply with legislation affecting cooperative status. On the other hand, some associations made changes to assure control in the hands of patrons.

Finally, cooperative leaders have definitely directed the program of cooperative undertakings to the more conservative economic objectives of these enterprises. This is illustrated by the statements of various leaders in the cooperative field. H. E. Babcock, President of the National Council of Farmers' Cooperatives, in a discussion entitled "Fundamentals of a Co-op Philosophy"<sup>5</sup> recently stated:

Many people in the cooperative movement still look upon a cooperative primarily as a device for harnessing economic power along monopolistic lines which in turn is applied by one group at the expense of another. The result of such a narrow philosophy is simply the creation of another pressure group in a society whose very existence is already threatened by selfish group interests. A much more democratic conception of the use of cooperatives is to regard them as pace-setters, designed to improve, by their example and their competition, the performance of those services in which they engage to the end that society as a whole benefits.

Homer L. Brinkley, General Manager of the American Rice Growers Association, has this to say:<sup>6</sup>

... in our opinion it is now generally recognized that only Government can exercise the broad-scale controls necessary for the stabilization of agriculture as a whole. Cooperative effort is by its very nature totally unsuited to such an endeavor. The wrecks of farmers' associations which in past years tried their hands at price fixing, production control and such related endeavors is ample evidence to all concerned that such a program applied to agriculture as a whole by cooperatives would be a dismal failure.

Thus the pendulum has swung!

Looking ahead there are two factors now operative which over a long period will have a marked effect on cooperative business enterprises. The first is the small return to equity capital in all business enterprises. The second is the policy of the Anti-Trust Division toward any attempts to usurp, allocate or divide markets, fix prices, or exercise any control of prices beyond first transactions.

The decreasing return to equity capital has been well-analyzed by E. G. Nourse in his preliminary publications on "Price-Making in a Democracy." With increased taxation, particularly on incomes,

<sup>5</sup> H. E. Babcock, *Fundamentals of a Co-op Philosophy*. *Cooperative Digest* May, 1942, p. 22.

<sup>6</sup> *American Cooperation* 1941, p. 53.

new equity capital will be increasingly difficult to obtain, especially for new enterprises. The producer, therefore, who seeks a new or better service may be forced to establish it on a cooperative basis to obtain it. The importance of the factor of taxation is illustrated by the fact that today a cooperative which operates in accordance with income tax regulations on an exempt basis and has an average of \$100,000 at the end of the year which it allocates or distributes to patrons pays no income taxes, while a proprietary company with the same earnings pays in excess of \$45,000 in taxes. The general policy of cooperatives is to operate on established competitive margins and then after deducting costs of operations return any excess on a patronage basis with little or no return on members' equity capital. But the proprietary concern distributes income above costs on the basis of equity capital. When a large portion is taken by taxation there is small inducement to put up equity capital unless some other reward such as increased or better service is in the picture. We have already seen the taxation factor determine whether or not a new agricultural business enterprise would go the cooperative route or proprietary. It is my guess that it will become an increasingly important factor.

The second factor—the Anti-Trust Division's policies—is likely to influence the sales practices and policies of cooperatives. I hasten to say that in discussing the Anti-Trust Division's policies that I have never seen a statement of their policies toward farmers' cooperatives, nor do I know whether or not the Division has definite policies. What I have to say about their policies is what I have gathered from reading the indictments in the Food Trade industries and listening to discussions of the import of their indictments. To be more accurate, I should say "my interpretation of the Division's apparent policies toward farmers' cooperatives."

First, the Anti-Trust Division does not look with favor on any attempts to usurp or restrict markets to the exclusion of competitors. Hence, if a cooperative had such a degree of control of a given market area that non-members were excluded from it the association would be subject to prosecution.

Second, the Division is opposed to the cooperative's entering into agreements with competitors to allocate markets, fix prices or disseminate cost data among competitors as a basis for pricing.

Third, the division—as indicated in the Chicago Milk Case—does not countenance attempts to exercise any control over prices be-

yond the first transaction; in other words, attempts to fix dealer margins or resale prices.

True, many of the apparent policies of the Division have not been tested in the courts, but if I have analyzed them correctly and they are sustained by the courts, some cooperatives may be forced to abandon certain sales practices and policies.

Currently cooperative and commercial concerns alike are facing many critical problems. Competition in many areas is exceedingly keen, margins narrow and at times non-existent. In some areas facilities are excessive. This is especially true in the field of dairy marketing. As a result, several cooperatives in this field have had and are having a struggle, and some have ceased operations. Now a new factor arises—Government purchase of certain products, principally cheese, evaporated milk and edible skim milk powder. The prices for these products are higher than those of other dairy products. Consequently, those plants not equipped to make the preferred products and unable to get the equipment are at a tremendous disadvantage. At the moment, a dairy plant equipped to make edible skim milk powder can obtain, on a butterfat basis, nearly 10 cents per pound more than a plant equipped to make casein.

Other difficulties arising out of War demands are beginning to appear. Shortages of materials, equipment and transportation confront all business enterprises. At the same time, cooperatives are asked to assume new functions and responsibilities. They have one advantage in meeting emergency situations, however, and that is the experience their members have gained in sharing burdens as well as opportunities. In emergencies more and more things must be done on a cooperative basis—and those with cooperative experience forge ahead. My belief is that farmers' cooperatives have and will continue to respond in taking the lead in solving many of the War emergency problems affecting agriculture.

## EMERGENCY CONTROL IN THE FARM REAL ESTATE MARKET

M. M. REGAN AND FRED A. CLARENBACH  
*Bureau of Agricultural Economics*

THE danger that land values during the emergency will reach levels substantially in excess of those warranted by long-run income expectations is widely recognized. Although differences of opinion exist concerning the seriousness of this danger, there is fairly general agreement that possibilities for direct controls in the farm real estate market should be given early and careful consideration.

If special controls in the land market were not available when needed, land values would reach excessive levels; mortgage credit might be over-expanded on the basis of inflated land values; and an increasing proportion of the farm land might come into the ownership of non-farmers. Probable post-war consequences of such developments include widespread loss of ownership of mortgaged farms, a lowering of levels of living among farm families attempting to hold excessively mortgaged farms, a less desirable pattern of farm tenure, and generally increased rigidities likely to constitute a continuing source of maladjustments in the agricultural economy.

Such probable developments and their consequences clearly indicate a need for consideration of direct controls in the farm real estate market. It is believed that practicable measures can be devised to prevent or curb undesirable developments and that a post-war deflation of farm prices is sufficiently probable to warrant attention to emergency controls at this time. Such controls are likely to be a more effective and satisfactory basic approach than remedial measures to be applied in the post-war period.<sup>1</sup>

<sup>1</sup> Concern over excessive increases in land values and mortgage debts assumes a substantial fall in the general level of prices, particularly agricultural prices, following the war. Yet, it must be recognized that a post-war price crash is not inevitable. Particularly if further price advances are moderate, national monetary and fiscal policy may well be directed toward maintaining prices after the war at levels approaching those prevailing during the war. If such policies were successful, higher land-value levels would be maintained and post-war impacts would be reduced. However, the effectiveness of methods heretofore used for maintaining a desired level of prices has by no means been demonstrated.

In addition to monetary policies, obviously post-war production and trade policies affecting agricultural commodities will have an important bearing on land values. Under either a policy of freer trade or greatly restricted international trade, the likelihood of continuance of the "surplus problem" after the war cannot be overlooked.

The basic consideration in favor of controlling land values during the emergency

*Factors Indicating Possible Need for Control*

The more important value-stimulating forces now at work in the land market are those directly associated with the "inflationary gap." In 1941, cash farm income exceeded that for any year since 1920, and preliminary estimates for 1942, indicate that this year cash income will probably be the highest yet recorded. Money incomes in other sectors of the national economy have, of course, also increased.

The inflationary gap will undoubtedly be narrowed by the absorption of a large part of the excess buying power in debt payment, war bonds, and increased taxes. But the probability now is that these absorbents will not sponge up nearly all the surplus funds. Other investment outlets—corporate stocks and bonds and urban real estate—have never attracted a large volume of farmers' funds. Moreover, those alternative investment opportunities are at present not particularly attractive for either farmers or city investors. Under these circumstances, it now seems probable that a large volume of unabsorbed buying power in the hands of both farmers and city people will flow into the farm real estate market.

Purchases by non-farmers have already shown a tendency to increase. Particularly if an inflation psychology should make further headway, farm land may be increasingly regarded as one of the best available refuges for funds during an unsettled period. If security of principal becomes the primary consideration for an increasing number of buyers, land values might easily rise to levels far out of line with current returns. The easy availability of farm mortgage credit in the hands of lenders actively competing for business increases the danger of such developments.

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period is the insurance aspect of such a course, in contrast to the gamble involved in taking no formal action. The impacts of an adjustment from controlled lower levels to permanently higher post-war levels would be much less disruptive than would adjustment from uncontrolled inflated values to substantially lower price levels. The safer course would appear to be that of discouraging or slowing down value, credit, and ownership developments until a better basis is available for predicting future prices and income levels.

In any event, the requirements of balanced utilization of economic resources will make increasingly clear the need for further urbanization and shifting of emphasis from agriculture to industry. (This conclusion probably need not be greatly modified even though it is assumed that a rather broad nutrition improvement program is undertaken after the war.) Progress toward making such a shift is likely to be accompanied by a reduction in the share of farm income that land may claim, and thus lower values. Subsidization of agriculture could result in a temporary maintenance of relatively high land values, but if a continuing subsidy were associated with production restriction it would be subject to increasing question.

The high levels of farm prices and returns provide surplus funds and also act as a strong inducement for purchase of land by farmers and others. This effect derives from the emphasis placed by prospective buyers on current prices in estimating future land earnings. Moreover, in view of the limited returns available from alternative investment opportunities, it is likely that the liberal estimates of future returns from land will be capitalized into values at decreased rates. This combination of forces is disturbing in its value-stimulating potentialities.

Up to now, the flow of additional funds into the land market has not led to unwarranted increases in land values, partly because of special counteracting influences which are, however, becoming progressively weaker. Creditor agency holdings which for years were a "drug on the market" in many areas have been rapidly depleted during the last two years and in some sections are no longer a factor in the market. Similarly, there is a decreasing backlog of farms which estates and elderly farmers have continued to hold for a number of years only because they did not wish to sell at depression value levels. As this backlog is further depleted, further value increases may be expected. The transition to less willing sellers, with higher asking and reservation prices for their farms, is already under way and has caused some reduction in sales.

Other influences currently tending to inhibit land value increases are: price ceilings and other price control measures; serious labor shortages and increased farm wages; equipment and livestock shortages; and processing, storage, and transportation difficulties. Farm labor shortages, particularly, are increasingly cited as a factor necessitating farm sales and dampening the interest of many farmers in expansion of their real estate holdings. The value-inhibiting effect of these elements will depend largely on the extent to which they are judged to threaten income prospects and these effects will vary from region to region. The conservative lending policy followed by the Farm Credit Administration and a number of private institutional lenders, the possibility in some States of increased property and sales taxes because of reduction in public revenues from other sources, and similar influences likewise will have some negative effect on demand and values.

Considerations such as these, developing against a background of the land value movements experienced during the last 25 years, have rendered prospective purchasers considerably more cautious

than were many buyers during and immediately after the first World War. The earlier belief in a continuation of a secular rise in land values was thoroughly shattered by events of the 1920's and 1930's. Farmers, particularly, now consider current high returns to be temporary; but attitudes of caution may be substantially modified in a relatively short period.

While all these deterring influences are at work, they appear to be somewhat over-shadowed by the value-stimulating influences. The latter are likely to be decisive if the general level of prices should advance greatly under the stimulus of a large pool of excess purchasing power not adequately absorbed through taxation or the sale of war bonds. Excess buying power would continue to exert pressure toward a higher level of prices in general, including the price of land, and would afford direct stimulus to land values through investment of excess funds in land. Thus, many influences now at work in the land market are essentially derivative from and secondary to the greatly increased fund of excess purchasing power seeking outlets.

Thus far, the net effects of opposing forces operating in the land market have not been alarming. Between March 1, 1941 and March 1, 1942, both land values and sales activity increased markedly. The Bureau of Agricultural Economics index of average value per acre (1912-14=100) for March 1, 1942 was 91, as compared with 85 a year earlier, 84 on March 1, 1940, and the low of 73 on March 1, 1933. The advance during the year represents an increase of 7 per cent over the previous year, a rise almost double the size of annual increases that occurred following 1933, and is the largest reported since the last world war period. Generally speaking, a levelling-off in values as well as in volume of transfers occurred during the 4-month period March 1 to July 1, 1942. Values in mid-1942 were 25 per cent above the 1933 low, although still 9 per cent below the 1912-14 base and almost 50 per cent under the 1920 peak.

However, in assessing the need for controls and determining the time for application, attention must center in the forces operating in the market and their imminent effects, rather than in actually recorded developments.

#### *Objectives and Types of Control Measures*

Fundamental to a choice of measures for control in the land market are understanding and agreement with respect to the princi-

pal objectives to be achieved. Although primary interest centers around preventing temporary prices from being excessively reflected in values and in the amounts of credit extended, proposals for this purpose might justifiably be modified in recognition of other types of impacts. For example, controls should be designed, insofar as feasible, so that they will not interfere seriously with desirable long-term tenure improvement trends. Such adjustments, however, should not be carried to the point where the central essential objective of control might be seriously endangered.

An approach of this nature would permit emphasis on stabilizing values and credit for the benefit of all groups having an interest in farm property values. Thus, the protection of equities held by owner-operators, landlords, credit agencies, individual lenders, taxing authorities, banking institutions, and others, would be within the scope of the basic objective.

Agreement on objectives does not automatically lead to agreement with respect to the particular control measures to be studied or proposed. Availability of particular measures must be judged in the light of (1) probable economic effects; (2) administrative feasibility; (3) legal and constitutional problems; and (4) probability of public acceptance.

The plan for control should be a working compromise in which each type of consideration indicated above will have its appropriate weight. Although the importance of political questions of public acceptance and also of legal and constitutional considerations is recognized, the following discussion is concerned almost entirely with problems of economic effects and administrative feasibility. It would appear, however, that several of the measures discussed would not be likely to encounter serious legal obstacles. Likewise, it seems probable that measures of this nature, which during other times would probably be unacceptable to farmers and the general public, might be accepted as necessary and fair during the present period.

A number of broad programs designed to curb general inflationary tendencies will have an important bearing upon developments in the land market. Chief among these are efforts to limit price and wage increases and to absorb excess purchasing power through increased taxation, are bond purchases, and debt retirement. Treatment of farm commodity prices is of particular concern in connection with the problem of curbing land value movements. In many

respects a more rigid control of farm commodity prices might constitute one of the more desirable as well as effective ways of curbing a primary factor stimulating value increases.

However, even though the general anti-inflationary program, including farm commodity price controls, were reasonably successful, excessive increases in land values might still make specific controls in the land market necessary if serious post-war impacts are to be avoided.<sup>2</sup>

A number of informal steps are now being taken by public and private agencies to resist the development of an unhealthy land boom. Among these are the conservative loan policies advocated by the Farm Credit Administration and several other principal lending agencies. Many lending agencies have made arrangements which encourage farmers to make advance payments on debt principal during the current high income period.

Educational measures, including Department of Agriculture and Experiment Station releases, addresses by public officials, newspaper publicity, and editorial comment have a place in the effort to maintain reasonable stability in the land market. Well-considered activities of the educational type should continue to have beneficial effects. However, in view of the strong value-stimulating influences that may develop during periods of rapid economic change, the reliance that may be placed on either voluntary or educational measures is limited.

#### *Farm Mortgage Debt Ceilings*

Most of the distress associated with land value fluctuations is traceable to the rigid contractual obligations entered into at excessive land value levels. The primary purpose of credit controls would be to prevent or minimize the loss of equities in agricultural property during the post-war period. Other purposes would include curbing land value increases and the discouragement of land speculation.

As indicated earlier, several factors in the present mortgage

<sup>2</sup> John D. Black has said, with respect to farm commodity price controls and land values: ". . . the problem of keeping inflation under control has two phases so far as agriculture is concerned: first, that of keeping the price level in line, and second that of holding land values down to a safe level. The second is greatly dependent upon the first, but not wholly so. If the general price level were held where it is, even if prices of farm products rose not one point more, there still would be a good chance of a runaway land market if nothing is done to prevent it." (Parity, Parity, Parity, p. 240.)

credit situation indicate the need for steps to curb credit expansion. Alternative private investment opportunities are limited and lenders are actively competing for farm mortgage loans in many areas. Elements entering into the competition are interest rates, loan terms and—more ominous for future stability—liberal appraisals and size of loans. The continuance of such an easy farm mortgage credit situation is likely to have a stimulating effect on land values, and may lead many farmers to assume excessive debt burdens.

Restriction of further expansion of farm mortgage credit would assist in curbing unwarranted price advances and speculation. Such an effect would come about through reducing the number of effective bidders for farms, absorbing the working funds of potential speculators, and decreasing the amounts offered by bidders.

The Farm Credit Administration has already instituted a voluntary program to encourage the widespread adoption of credit policies based on conservative security values. If widespread adoption of such policies could be assured, the program would appear acceptable to leading private lending agencies. Strict adherence to such a policy by a limited number of agencies would make difficult the maintenance of the mortgage portfolios of the complying agencies because of competition from those not likely to cooperate. Individual lenders constitute the group most likely to endanger the success of a voluntary program for restricting credit.

Regulations establishing ceilings for individual farms beyond which mortgage credit could not be expanded for the duration of the emergency could make the conservative appraisal and credit extension policies visualized in the Farm Credit Administration program compulsory for all lenders.<sup>3</sup>

Debt ceilings on individual farms might be determined by (1) the amount of secured debt outstanding on a selected date, or (2) a given percentage (e. g., 50 or 60 per cent) of an approved "normal value" appraisal. The outstanding debt would provide a preliminary ceiling which would control unless a higher ceiling were established under an appraisal, which would be made upon request. Arrangements for obtaining appraisals might involve either direct employment by the administering agency of a staff adequate for

<sup>3</sup> The President probably now has authority to regulate extension of farm mortgage credit through Section 5 (b), as amended, of the Trading With the Enemy Act of October 6, 1917.

making the requested appraisals; or establishment of a roster of accredited appraisers, with the appraisal activities of the administering agency limited to review and approval. A higher ceiling might be permitted in connection with purchase of land for owner-operation, since a blanket restriction might affect tenants adversely relative to other groups. Minimum ceilings might be fixed in order to eliminate a need for appraising a large number of properties on which the total debt would be small.

Such an approach should provide sufficient flexibility to allow for debt increases considered essential, and yet operate as a safeguard against the possible growth of excessive encumbrances on individual farms.

Although the principal effect would be that of restricting increases in secured contractual obligations, the measure should also have a definite curbing influence on land values. This result would be expected from the reduction in demand attributable to the increased cash down-payment requirements. The effect of the conservative appraisals on attitudes toward land values would also operate in this direction. Further, the restrictions should operate as a definite obstacle to possible speculative developments. While considerable activity of the speculative type could conceivably develop on the basis of cash transactions in which increased demand resulted from security-seeking capital, easy credit appears to have been an essential element in past land booms. The demand necessary to support an extremely active market relies upon an extensive number of purchasers making but small down-payments. In addition, the larger down-payment requirement would limit the activities of potential multiple-unit buyers, since their liquid capital would be absorbed by fewer purchases.

Possible limitations in the use of a debt ceiling measure as a means of curbing the price of land transferred are offset by the broad coverage available under the type of credit measure indicated, for the security values of a vastly larger number of farms than those transferred are controlled.

Possible inequalities in credit ceilings are likely to be much less serious in practice than would be the case if price ceilings were applied. With credit ceilings, inequalities would be temporary, but permanent disadvantage might result from price ceilings that were too low. With a low credit ceiling, the loss would be limited to operating without the use of additional capital for the duration of

the emergency. In general, the degree of control available under the debt ceiling measure outlined would appear to be about properly geared to present and immediately prospective requirements.

The measure has a number of limitations which should not be overlooked. Its limited effectiveness in curbing values is of material significance only if the measure is considered in isolation from possible succeeding measures directed more particularly toward control of values and other factors in the market.

Perhaps the most serious limitation of mortgage credit control measures lies in the possibility of a large expansion of short-term credit which in the post-emergency period might be funded into debt secured by real estate. This type of development contributed materially to the increase in mortgage debt following the first World War. It may be pointed out, however, that definitely limiting the possibilities for debt conversion during the emergency period should operate to curb unwarranted increases in short-term credit. Attempts at any rigid type of control of short-term credit during the war might interfere with agricultural war production. Possible advantageous alternative methods for dealing with the short-term credit problem involve action during the post-armistice period.<sup>4</sup>

Minor limitations and difficulties peculiar to local areas might be cited: if security of ownership is the primary consideration, the debt ceilings may be unnecessarily low; uniform percentage-of-value debt ceilings are unsatisfactory in the light of credit experience in different land classes and type-of-farming areas; administration would be complicated in joint-security loans (i.e., where both land and chattels are covered by one mortgage); and the appraisal review approach may not be adequate. Some of the limitations of this nature may be overcome by adjustments in the measure. All would need to be considered in the light of administrative feasibility and overall objectives.<sup>5</sup>

<sup>4</sup> One type of measure would involve remedial action of a debt-adjustment nature in which the government might bear at least a part of the loss. In some respects, a program involving farm commodity price supports, for a sufficient period following the armistice to allow for the reasonable reduction or liquidation of emergency-incurred debts, might be more desirable. Either program would relieve the pressure for conversion of short-term debt to mortgage debt, and would thus reduce the likelihood of widespread loss of ownership.

<sup>5</sup> It is recognized also that various possibilities for avoidance would make some special provisions necessary. For example, long-term mortgage loans at high rates of interest, with heavy penalties for payment before maturity, might be used by lenders. The present value to the lender of such a contract would obviously exceed the principal amount of the loan. Both the total and annual cost to the borrower

### *Tax Measures*

Among the types of tax measures that might conceivably be used for obtaining a degree of control in the farm real estate market in the emergency period are: taxes on land transfers; resale gains or war increment taxes; taxes on rents; and taxes on mortgages. The possible variations within each type and the possible combinations of measures are numerous. Attention will here be limited to the two most frequently proposed and more appropriate types of tax measures—the capital or resale gains and transfer taxes.

Relative simplicity of administration and a reasonable likelihood of public acceptance are among the advantages of a tax approach. A related advantage is the limited interference with customary practices in the real estate market in determining prices and purchasers. On the whole, tax measures may be considered as modifying market decisions that would still be determined basically under competitive circumstances. This is in contrast to certain other types of controls which would virtually mean supplanting the market mechanism.

As a result, it may not be possible to achieve by tax devices the strict degree of control available through measures involving direct control of transfer privilege. However, particular combinations of tax measures might be devised to provide adequate control over the market except under the most extreme circumstances.

A tax on capital gains from *resales* may be defined as a tax on the net value increment accruing in the period between purchase and sale of farm real estate, when *both* purchase and sale take place within a defined "emergency period." Such a tax differs from a *war increment* tax, in that the base period date for the latter would be December 7, 1941 or some other date declared to mark the beginning of the defense emergency period. For a war increment tax, appraisals as of the base date would be necessary to determine

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would exceed the amount contemplated under the debt ceiling limit. Such contracts might be particularly significant in connection with purchase money mortgages. This type of avoidance can be eliminated by prohibiting unreasonable penalties or other obstacles to refinancing.

Another type of avoidance could arise in transactions where the seller would take as a part of the consideration an unsecured note or a chattel mortgage in addition to a real estate mortgage equal to the debt ceiling. Operations of this nature could be eliminated by limiting credit of all types extended by the seller to the maximum allowable for a real estate mortgage. Such a provision would be aimed primarily at individual sellers, though applicable to all sellers. Because of the high risk involved, there is likely to be little danger of excessive extra-ceiling loans being made by third parties.

base values, and all properties sold during the emergency period would be subject to tax. This is in contrast to the resale gains tax, which would apply only to properties transferred more than once during the emergency period. Both the above gains taxes differ from the ordinary capital gains tax in which the base-value date is the date of the next preceding transfer.

The principal purpose of a resale gains tax would be to minimize buying with the intent of reselling at a profit. Presumably, purchase for investment or operation would not be influenced adversely by a resale gains tax. Eliminating or strongly discouraging speculative incentives would have a definite curbing influence on values in those areas where speculative activities would otherwise lead to excessive value increases. Moreover, it seems likely that the suppression of speculative pressure would have a steady influence on attitudes toward land values, by preventing development of a "get-rich-quick" psychology. However, increases over levels likely to prevail in the post-war period could occur under the steady pressure of purchases for investment and operation.

The gains tax would operate to restrain values through its effect on the number of prospective buyers as well as on the price likely to be offered. Buyers interested primarily in resale profit potentialities presumably would largely withdraw from the market as the result of a high tax. The amounts likely to be offered by most buyers would be reduced because of the limited extent to which capital investment increases could be realized. For a larger proportion of buyers, annual returns and security of principal would be the primary considerations determining bids. Inasmuch as sellers would be required to pay the resale gains tax immediately after sale, the down payment they would require from buyers would probably be increased; and this factor would, in turn, reduce the number of bidders.

Since first transfers would not be directly affected by such a tax, no material effect of the tax on the supply of land offered for sale would be expected for some time. The longer the tax were in effect, however, the larger would be the number of farms subject to the tax if again sold. With high farm earnings and rents, many owners of farms subject to the tax would be unwilling to accept tax-reduced net proceeds. Since such proceeds might yield considerably lower returns in alternative investments, many such farms would be withdrawn from the market. With a decrease of farms not subject

to the tax and with a continuing strong demand, prices that might be obtained for these farms could increase materially. More farms would probably be involved in single transfers under the operation of the tax in contrast to multiple transfers for fewer farms in the absence of a tax.

The supply-restricting influence of the resale gains tax would be materially reduced if farm earnings were stabilized sufficiently to avoid stimulating continued value increases.

Limitations indicated are merely a recognition of the special purpose nature of the resale gains tax. Inasmuch as the basic problem includes the retarding of a general value upsurge, such a tax can be considered only as an auxiliary measure to prevent extreme developments from occurring, and as such may be an effective supplement to other approaches pointed more directly at curbing the widespread value increases.

For purposes of assuring popular acceptance of, and confidence in, effective value control programs, this measure offers an added advantage. In popular feeling, speculators and profiteers are deemed to be especially obnoxious; ordinary farmers are thus much more apt to be prepared for more comprehensive control measures if they are categorically assured that speculation and profiteering are subjected to the particular attention of public authority.

The principal issues in framing a resale gains tax center around base date, rate schedules and termination, and relation to the Federal income tax.

It is believed that the tax should apply only to sales of property purchased after the adoption of the measure or, alternatively, after December 6, 1941. The disadvantages of an earlier date would include withdrawal of more farms from the market; decreased public acceptability; and increased difficulties of establishing base values and adjustments for increments and decrements. Most of the objections to the tax on grounds of its possible inequitable operation associated with an early base date would be avoided by making the tax apply only to gains realized after the first sale following passage of the act. Thus, gains at first sale would not be taxable, but the consideration would establish the base for measuring gain on second sale. Owners at time of passage of the act could sell without paying a special tax on capital gains; and prospective buyers would be aware of the tax before purchase.

Inasmuch as the chief purpose of this tax is regulatory, the level

of rates obviously should be sufficiently high to achieve the particular extra-fiscal ends desired; amounts of revenue raised would be related inversely to the level of rates and to the effectiveness of the tax as a control measure. Probably the rates should be as high as public opinion would accept.

It is believed that a rate pattern involving a flat rate as high as 85 or 90 per cent for a specified ownership period (or for the duration), with a declining rate thereafter, is to be preferred. Following the termination of the emergency, the tax rate might be reduced  $1\frac{1}{2}$  or 2 per cent each month. (The rate would thus reach zero after four to five years from the termination of the emergency.) A gradual month-by-month downward graduation is deemed preferable to a schedule involving a small number of major rate reductions during the period of decline. Alternatively, the flat rate might be made to apply during a specified ownership period, e.g., 3 years, with the rate reductions beginning at the end of such ownership period or the end of the emergency, whichever is earlier. This type of differential treatment based on length of ownership might make the high initial rate on short-term gains more acceptable to the general public; and this treatment would probably achieve substantially the same effects as a flat rate for the duration.

Rates, as well as other features, would need to be appropriately related to those of the existing income tax structure, so as to increase the total effective tax on resale gains. No particular problem appears to be involved in this coordination.

One of the simpler and more obvious types of tax measures for control in the land market is that on transfers of farm real estate. A probable effect of such a tax at a 10 to 20 per cent rate would be a substantial reduction in the volume of transfers below the level that otherwise would have occurred; for in order to have a transfer, a property would have to be worth more to the buyer than to the seller, by an amount at least equal to the tax. Only if all buyers should pay more, by the amount of the tax, than they would have paid if there had been no tax, would the net amount received by the seller be equal to the market value that otherwise would have prevailed. In the absence of a tax, some buyers undoubtedly pay somewhat less than they would have been willing to pay; and, likewise, some sellers receive somewhat more than their real reservation prices. To the extent that differences of this sort are large enough to compensate for the tax, transfers could be made; and the buyer would pay more and the seller receive less,

A further value-depressing influence would be the realization by the buyer that if he were to sell the property while the tax statute were still in effect, his net proceeds would be less, by the amount of the tax, than the gross cost to the later buyer. Moreover, the minimum immediate payments that would be required from the buyer (down payment plus amount of tax, inasmuch as seller or mortgagee would scarcely make a substantial reduction in net equity requirements because of the tax), would be increased enough so as to virtually eliminate a considerable proportion of would-be buyers in some areas. Also, the absorption of some funds in taxes would act as one more anti-inflation influence and could have an appreciable retarding effect upon land values.

In order to avoid interference with types of transfers considered especially desirable, a rebate or exemption system might be devised to provide differential treatment. Since a non-prohibitive transfer tax probably could not offset strong stimuli to speculation, a capital gains tax might be a necessary complement to a transfer tax.

#### *Price Ceilings and Other Measures*

A plan contemplating the establishment of price ceilings for agricultural land would be an attempt to extend the general type of control now exercised over many commodities and over rents in defense areas to the sale of farm real estate. The ceiling or maximum price at which agricultural land could be transferred would be established on the basis of an appraisal as of a selected base date. Customary methods of appraisal, such as those used by the Farm Credit Administration or those recommended by the American Society of Farm Managers and Rural Appraisers, would appear satisfactory for establishing base-date values.

The primary consideration would be that of minimizing the influence of wartime prices and incomes on transfer prices of land. Once a ceiling were established for a given farm, it would hold for the duration of the emergency. If farm commodity prices and incomes continued to rise, the effect of transfer price ceilings on the supply of farms offered would be similar to that already indicated in connection with the resale gains tax under like circumstances. That is, fewer farms would be offered for sale because more owners would prefer to continue to receive the high current returns rather than to sell at the ceiling prices. Concurrently, both farmer and investor demand for farms would increase, especially if alternative investment opportunities were not attractive. If the ceiling prices were

regarded as likely to hold for the duration, speculative demand would decline. However, if the ceiling structure appeared endangered, a strong speculative demand might well develop in expectation of the ceilings being lifted. It may be noted again, as in connection with the effects of a resale gains tax, that if farm commodity prices and incomes were stabilized, the supply and demand effects indicated above would probably not develop to a point at which the ceiling structure would be endangered.

Because of the likelihood that the number of would-be buyers at ceiling prices would exceed the number of farms offered for sale at those prices, a problem arises as to who is to be permitted to buy. One solution would be to let the seller decide. Under this system, financial arrangements would have to be scrutinized carefully in order to prevent circumvention of price ceiling regulations.<sup>6</sup> The alternative is to set up a system of priorities according to classes and types of bidders.

In contrast to the "handicap" type of discrimination among classes of buyers that may be used in connection with credit or tax measures, there is the possibility of direct discrimination on a type-of-buyer basis. Either a system of priorities or direct prohibition of purchase by certain classes of potential buyers could be employed.

Probably the principal purpose of such a measure would be to prevent a drastic change in the ownership pattern as a result of war conditions. Nonfarmer buyers might come into the farm real estate market in large numbers, not only with the ordinary investment motives but also with the desire to use farm land as a refuge during a possible inflationary period. Insofar as such a development threatened to interfere with wartime production of farm commodities, a second purpose might be served by denying access to the market to certain classes of would-be buyers. Such an arrangement could operate without a price ceiling, with competitive bidding among those eligible to buy being relied on for price and allocation determina-

<sup>6</sup> Although no attempt is made here to consider all types of likely evasions, the possible use of mortgage credit as a means of transferring land at above-ceiling prices is so obvious as to require special credit regulations as an enforcement supplement to the ceiling system. If the amount of credit extended on a farm were permitted to go beyond the ceiling price, transfers actually above the ceiling price could be effected through assignment to the mortgagee. Provision would have to be made for preventing extension of mortgage credit in excess of the ceiling price. This would involve the extension of the appraisal requirement to farms on which additional mortgage credit was to be extended, and would thus essentially involve a type of credit control.

tion. The removal from the market of the indicated groups of buyers would also have a curbing effect on land values, particularly in areas where purchases by nonfarmers might otherwise be extensive.

A system of buyer priority classes would differ from a direct prohibition arrangement in that the former would provide the order in which persons would have access to the market, while the latter would set up an absolute bar to certain classes of persons. A priorities system would very likely be necessary for the operation of a price ceiling measure of the nature discussed. Buyer priority classes would be set up in the light of ownership pattern considerations and wartime production potentialities.

In view of the special-purpose nature and limitations of individual measures, it is possible to develop a more effective control by combining elements of two or more of the basic measures discussed above.

One approach to maximum control would involve a combination of price, credit, and buyer control measures. Certain rigid requirements with respect to those aspects of the transfer would have to be satisfied before permission to transfer would be granted. The considerations involved in establishing the requirements with respect to each element in the transaction would be essentially like those already discussed. Since resort to a comprehensive plan of control might eventually become necessary, in designing and applying less vigorous and simpler measures attention should be given to their possible place in such a scheme for more extensive control.

#### *Possible Programs or Courses of Action*

Probable developments in the land market indicate the types of control measures for which there is likely to be need and their expected order of application. Under the expectation of gradual development of a need for control, at least three alternative courses of action present themselves.

One alternative would involve immediate application of measures sufficiently comprehensive to control the most extreme probable developments. Because of legitimate question whether need for such a drastic measure would ever actually arise, such an approach would probably encounter difficulties in the way of public acceptance. Moreover, premature or unnecessary controls of a comprehensive sort might be both costly and disruptive without yielding offsetting benefits.

A second course would also contemplate reliance upon a comprehensive measure, the application of which would, however, be delayed until the need were clearly apparent. No preliminary or intermediate measures would be planned. A basic objection to this course is that serious harm may result from developments well under way before controls were effectively applied. Also, in the absence of milder steps leading up to rigorous control, the public might not be prepared to accept the latter when necessary, and groups interested in continuing active developments might constitute serious obstacles to acceptance.

A third course would involve a step-by-step application of control measures in the light of developing needs. The successive measures should be complementary rather than alternative; that is, each additional measure should fit into the pre-existing pattern of controls leading to an increasingly comprehensive and coordinated control system. An important advantage of such a step-by-step procedure is its adaptability. Control would need to be carried only to the stage considered necessary in the light of reasonably probable developments. On the other hand, if rapid developments threatened, the step-by-step plan would be sufficiently flexible to permit proceeding at once to the advanced stage of control needed. Moreover, the step-by-step procedure would accustom the public to mild controls and would thus pave the way for acceptance of more rigorous controls if they became necessary.

## NOTES

### REGULATING OUTPUT VIA MULTIPLE PRICES

THE war is necessitating great shifts in agricultural production and these transitions will likely be instigated via price changes. In several instances this process of readjustment to war needs is being hastened by the Department of Agriculture announcing high price "floors" and low price "ceilings" for surplus and deficit commodities respectively. However there are reasons for supposing that the responsiveness of output to these price changes may be so low that the money cost of obtaining increased supplies of farm products will be enormously augmented. This increases the danger of inflation now and the difficulties of readjustment later. Accordingly it becomes important to consider any device which will partially regulate farm output without unduly altering the per unit cost of obtaining certain of the more important agricultural commodities.

The economic rationale of high price "floors" for deficit products is familiar to most of us. A rise in the price of a commodity has a two-fold effect. First, existing growers push production until their marginal costs are once again equal to price. Second, additional operators—who because of superior alternatives previously remained in other lines—will now begin producing the commodity in question. The magnitude of these two effects though is very dependent upon all other prices and costs remaining unchanged. Actually, however, the prices of most farm goods are rising together. Accordingly we must expect that the second effect will be much diminished when the prices of commodities which are reasonable substitutes—from the producers' viewpoint—are rising simultaneously. This means that the national supply schedules of many deficit products are becoming ever more closely linked to the marginal cost schedules of *existing* operators. Accordingly we must increasingly rely upon what is here termed the first effect for expanded output. Unfortunately short-run marginal costs rise rapidly. Not only does more intensive use of fixed agents involve diminishing returns but it becomes more costly to acquire extra variable factors. Where labor is a major real cost, and the operator and his family do farm work, higher product prices and net income will bring a diminution in the marginal utility of a dollar; but as the disutility occasioned

by a certain output is unchanged, the farmer's reaction to a higher price may be to work less.<sup>1</sup> Such a possibility is increased at a time when many consumption goods will either be unavailable or held at March, 1942, prices. After an expansion program is well under way, price increases may hence provide an ineffective and costly means of securing further output. If the price elasticity of supply is very low the principal effect of a price advance is merely to increase producers' surplus.<sup>2</sup> Where there is only one price, common to all producers of a specific product, this difficulty cannot be overcome.

The possibility immediately suggests itself of establishing a plan under which different portions of an operator's output would be variously rewarded. The theory of such a scheme may be briefly outlined. It is axiomatic that a farmer will adjust his operations so that marginal cost and marginal revenue are equal for each kind of output and input. The government, working through the self-interest of the individual farmer, can therefore secure a large measure of control over the quantity of these outputs and inputs by influencing the marginal revenue he obtains from the sale of his products and his marginal cost of acquiring agents of production. Usually the demand confronting a typical farmer for his product is infinitely elastic so that marginal revenue is uniform and equal for every unit of output. However there is nothing preordained about such a special relationship. Circumstances can be so arranged by the government, using quotas, bonuses and penalties, that the marginal revenue to output relationship of the individual farmer takes almost any form.<sup>3</sup> Similar manipulations can be carried out on the factor side by making a particular productive agent more or less expensive according to either the firm's demand or input.

Let us first consider the case of control by the government influencing the farmer's marginal revenue. One possibility would be to set two prices in each area, for every commodity to be controlled.

<sup>1</sup> This apparent paradox, that farm output may vary inversely with price, was noted during the worst period of farm distress a decade ago.

<sup>2</sup> The importance of this in the last war has been testified to by the late Professor F. W. Taussig, Price-Fixing as seen by a Price-Fixer, *Quarterly Journal of Economics* 33, pp. 205-241.

<sup>3</sup> It is just conceivable that a plan could be drawn up for an individual operator which would result in a marginal revenue schedule for him approaching coincidence with his marginal cost schedule. This would mean, if all opportunity costs had been properly included, that he would be indifferent as to whether he produced a zero, infinite, or intermediate output. This rather fanciful case is mentioned merely to illustrate the wide range of theoretical possibilities. What is wanted, of course, is a determinate output prescribed by the government.

These prices would apply to all producers of the products in question. A quota, allotment or block—these terms are used synonymously here—would be established for each product raised or grown by each farmer. (For the moment we shall assume that this quota is the amount which the farmer, under the drive of self interest, is likely to produce at the price applicable to the allotment.) This principle could of course be extended to include a great many blocks and prices, but we shall here assume only two different marginal revenues for each farmer and product. The base price, applicable to the quota, will be the market price as influenced by the government: the second price, applicable to output in excess of the quota, will be calculated from the base price, being in effect a bonus (if the commodity is deficit) or a penalty (if the commodity is surplus).<sup>4</sup> A considerable flexibility of control remains in the necessity of setting individual quotas for each controlled commodity on each farm.

The merit of such a plan, applied to *either deficit or surplus commodities*, is that the impact on farm incomes of drastic changes in demand, and hence in the second or final price, is minimized, because much of the output will be sold at the base price.

The deficit commodity case is illustrated in Figure 1. To obtain the increased production  $Q_1 Q_2$  an additional reward, represented by  $P_2 S R P_1$  plus  $STQ_2 Q_1$ , would have to be forthcoming if there was only one effective price. But under the suggested scheme the farmer's marginal revenue schedule runs from O to  $P_1$  to R to S and then proceeds horizontally. Accordingly the extra output can be obtained for an additional cost of only  $STQ_2 Q_1$ . The area  $P_2 S R P_1$  represents the reduction in the supplier's surplus.

The case of a surplus commodity, illustrated in Figure 2, is more complicated. The first block ( $OQ_1$ ) is again based on the estimated output of the operator at the first price ( $P_1$ ). The second block ( $Q_2 Q_1$ ) carries a penalty ( $P_1 P_2$ ) and is equivalent to the first quota ( $OP_1$ ) minus the amount which it is estimated would be produced if the only effective price were the base price less penalty ( $OP_2$ ). Thus the second block is represented by  $Q_1 Q_2$  and is closed. The effective marginal revenue curve runs from O to  $P_1$  to S to T and then continues horizontally until the output  $OQ_1$ . A reduction in output from  $Q_1$  to  $Q_2$  would normally necessitate cutting the price

<sup>4</sup> Block rate schemes of this type have, of course, long been in use: for example in connection with Triple A market quotas, in the service tariffs of public utilities, and in the income tax schedules of the United States government.

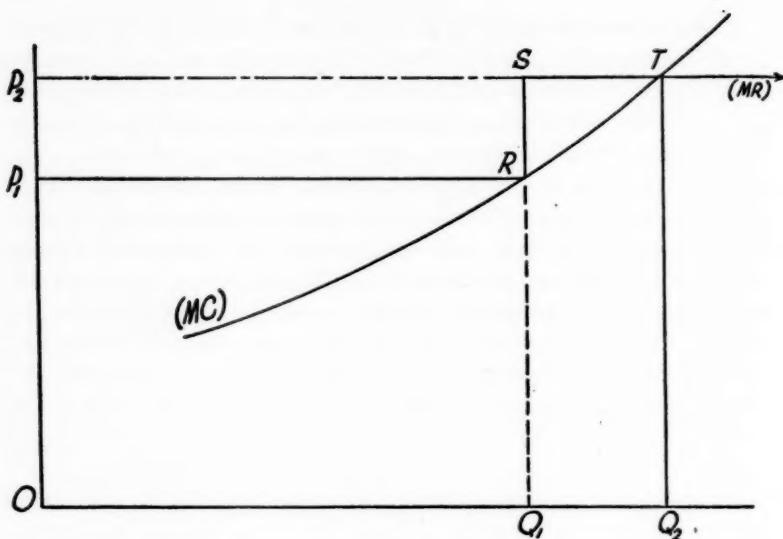


FIG. 1

from  $P_1$  to  $P_2$  for the *entire* output and this would entail a loss in gross income of  $P_1 S T P_2$  plus  $S R Q_1 Q_2$ . Under the two price plan, however, the income reduction is shown by the last rectangle alone.

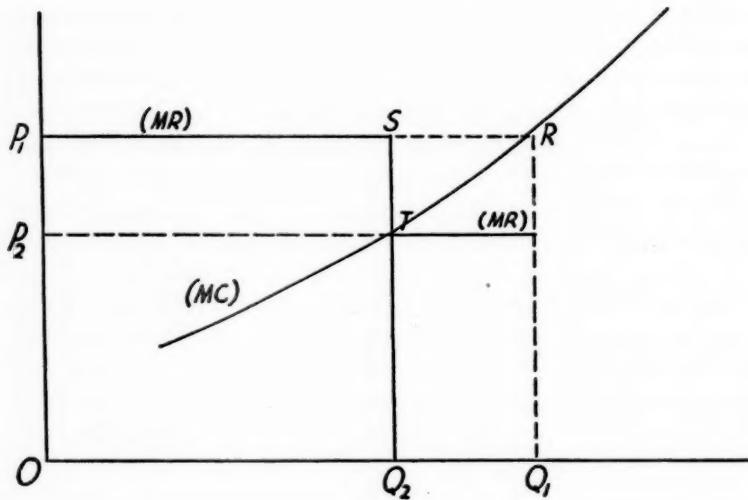


FIG. 2

Now that we have considered the impact of this scheme on both deficit and surplus commodities its *forte* becomes clearer. It is especially useful in the case of commodities the supply of which is deemed to be only temporarily out of alignment with demand, so that a long run adjustment, through entry or exit, is not particularly desirable. If there is a *temporary* surplus the object is not to decrease unduly the farmer's total receipts, and thus drive him to the city or into another commodity, when his present services will soon be wanted again, but rather to cut his marginal revenue only for those outputs where it is a determinant, with marginal cost, of total production. Conversely, if there is a *temporary* deficit, a high price on the entire output will lead to excessive optimism and unwise future commitments, but the fact of a nominal base price and high bonus indicates the transitory nature of the shortage and denies the farmer the financial wherewithal—neglecting credit—to invest for unwise permanent expansion. Because the condition of agriculture has always been linked to the trade cycle the scheme suggested here has additional advantages: by reducing fluctuations in farm income, booms and depressions are not further aggravated by large rises and falls in rural purchasing power and urban costs of living. It also reduces changes in farmers' subjective valuation of money. The two price plan is very flexible. Not only is it reversible but the partial divorce of final price from gross income will encourage the government to make more violent use of penalties and bonuses.

This method of output control should be employed in cases of cyclical rather than secular maladjustment and should only be used when and where the price elasticity of supply is low. Where a single commodity is chronically produced in superfluity, and when we are not in a trade depression, the government would do best to aid natural forces by setting a low maximum price uniform for all outputs.

A theoretical objection to this plan is that the fact of two marginal revenues for each farmer will cause a sympathetic discontinuity in his demand for productive agents. To some extent this will occasion a malallocation of productive factors. If the second price is a bonus, the physical yield of agents producing the final output of intramarginal farmers will be less than that of those same agents when employed producing the opening output of operators who are rendered extramarginal because of the artificially heightened factor

prices. Conversely, when the second price is a penalty there will be too many, rather than too few, producers of the regulated commodity.

A practical difficulty is that each farmer's quotas cannot be determined in the manner suggested for this would require their re-establishment whenever a change in related product or factor prices occurred. Although historical production, *per se*, has no relevancy except in so far as past circumstances can be expected to repeat themselves in the future, it would probably have to be used as a first approximation, with subsequent adjustments being made for changes in the condition of the land and in important prices.

Parenthetically, it is important to remember that an analogous system of control can be established by altering the supply of productive agents to the farm. Raising the price of a specific agent will, even after substitution effects have terminated, raise the marginal costs of any given output.<sup>5</sup> Conversely, the cheapening of an agent will lower the marginal cost to the farmer of producing any specified output and will thus lead, at any given price, to increased output. In practice, considerable changes in input prices may be the result of output control at a prior stage of production, so that a particular price determination may prove a two-edged sword changing both the outputs of producers and the inputs of users. Another possibility is that certain agents of production will be allocated by the government, according to the estimated importance of different farm operations, instead of being distributed through the price mechanism as is customary. In view of the numerous current or prospective shortages of many productive factors, for which close substitutes are not readily available,<sup>6</sup> a priority scheme for such scarce inputs should prove a potent means of output regulation.

Why not attain our ends by less devious means and simply order or request each farmer to produce a prescribed output? This is necessary only if the amount required of each farmer is not the output which he produces from self-interest. This discrepancy can be removed only by the use of physical force, possibly an appeal to patriotism, or a rearrangement of the financial incentives and deterrents confronting each farmer. The first alternative conflicts with our political ideals and the second is not likely to be generally ef-

<sup>5</sup> The possibility of induced inventions is here neglected.

<sup>6</sup> Examples are farm labor of all kinds, farm machinery, some commercial fertilizers, gasoline in certain areas, tires for trucks, packaging, barbed wire, etc.

fective: in contrast, monetary inducements probably possess a more universal appeal, and glove the hand of state authority.

STEPHEN ENKE

*University of California, Los Angeles*

#### COMMENT ON—"THE SCALE OF OPERATIONS IN AGRICULTURE"

ROBERT W. RUDD AND DAVID L. MACFARLANE

THE authors use several pages and present tables and diagrams which establish that agriculture is subject to violent up and down swings in cash income. They conclude that since the small scale farmer provides a larger portion of his own labor and consumes a larger portion of his own product than does the large scale farmer, his up and down swings in income are less violent than those of the large scale farmer.

It is also suggested that farming is not adapted to large scale operations because in farming, the risk is usually carried by one individual who has no other source of income. As a result, the operator is averse to carrying a large risk. In urban industries, the corporate form of organization permits the risk to be spread among numerous individuals, each of whom may have only a portion of his capital in one enterprise.

Since Federal crop insurance and government crop loans may tend to reduce the violence of the up and down swings, the conclusion is reached that these agencies are favoring the development of large scale operations.

If the violence of the up and down swings is the determining factor in causing small scale operations to be the rule in agriculture rather than the exception, the question might be raised as to why such feast or famine industries as steel manufacture, ship building, copper mining and certain other durable goods are typically large scale industries.

If the corporate structure has great advantages from the risk-bearing standpoint, there is no reason why farming cannot adopt the corporate structure as readily as have chain store and hotel organizations. Grocery stores and hotels in a previous generation were typically family enterprises in somewhat the same manner as is the typical farm. Perhaps if the authors attempted a large scale agricultural operation, they might conclude that the real difficulty in

conducting it is the difficulty of standardization of jobs and close supervision of a gang by one foreman.

If we could solve the problem of producing corn, dairy products, hogs, etc., by something approaching assembly line methods, likely we would find that agriculture in spite of violent ups and downs in prices is well adapted to large scale operations.

When one has a large crew of men in the hay field, the most carefully planned routine is likely to be completely disrupted by a heavy shower, or when a bunch of sows is farrowing in a March blizzard, it is difficult for the employees to follow a fixed routine in the same way that a shop manual may lay out the operations in the assembling of an auto or washing machine.

The result, when so much depends on the initiative and industry of the workers, is that the employer has found that much better results are secured when the crew is so small that the entrepreneur works with them or has them under frequent observation. When he has a sufficient accumulation of capital and acreage so that operations grow beyond the close observation stage, he usually comes to the conclusion that the problem can best be solved by either making each foreman a partner of the capitalist as the share tenant essentially is, or if the opportunity for even a moderate amount of personal supervision is lacking, he decides perhaps after trying paid foreman supervision to either lease for cash or to sell the property to some individual who is fixed to give close supervision to the operations.

In those cases where there has been some tendency for farming to become a large scale enterprise, it has been chiefly in such lines as truck farming where the supervision of a gang of workers by one foreman has more possibilities than in the general run of crop and livestock farming that is characteristic of most areas of the United States.

It might be added that one conclusion which might logically have been drawn from the data as to violent ups and downs in farm income is that the business is ill-adapted to a financial set-up in which a creditor supplies the major portion of the capital and in return receives a fixed claim on income that in unfavorable years may require a large portion of the product to meet the demands of the creditor, leaving little or nothing with which to pay for labor and other operating expenses.

WILLIAM L. CAVERT

*Farm Credit Administration of St. Paul*

## REJOINDER TO COMMENTS BY CAVERT

"Science moves, but slowly slowly,  
creeping on from point to point."

WORK in economics can proceed on a variety of levels. The writers of "The Scale of Operations in Agriculture" were attempting nothing more than to breathe a modicum of scientific rigor into the handling of a subject which has suffered badly in the hands of those who work hunches and prejudices to death and yet fail to advance economic analysis. Mr. Cavert takes his stand with this group.

With respect to the questions at issue Mr. Cavert's stand seems hardly defensible—except insofar as he objects to abstraction. On this methodological aspect the writers merely state their case, and let it rest on its merits. They assert that economics is an abstracting science, despite the literature which testifies volubly to the contrary. They fully realize what must be sacrificed as a necessary consequence of abstraction. With the foregoing statement of what the writers were attempting, and the limitations involved in their method, the objections which Mr. Cavert raises can be dealt with briefly:

1. The fundamental objection is that the writers have overlooked the fact that the real difficulties in conducting a large scale agricultural undertaking are those of standardizing jobs and those of supervision of workers. The truth is not that these hoary, but not particularly venerable, notions were neglected in the paper being discussed, but rather that they are stated in economic terms. They were described as "management proper, composed in turn, of supervision and coordination or decision making." Further, they are certainly included in Keynes' delightful concept of the marginal efficiency of capital which occupies a central place in the paper being discussed.

2. The writers plead not guilty to the charge involved in Mr. Cavert's statement that the fact that "such feast and famine industries as steel manufacture, shipbuilding, copper mining" operate on a large scale represents an inconsistency in their work. To state that they agree with Knight in attributing the large scale of operations in such industries to "personality and historical accident" is to dispose of the charge. However, their paper labors at length some of the purely economic aspects of this question.

ROBERT W. RUDD

*University of Kentucky*

DAVID L. MACFARLANE

### SOME LIMITATIONS TO USE OF COEFFICIENT OF VARIATION

**T**HE purpose of this note is to call attention to the need for caution in using the coefficient of variation. The coefficient of variation is frequently used to make entirely unwarranted inferences about the comparative amounts of "spread" or "dispersion" of two or more populations. Many books on the subject of statistics fail to point out the weaknesses inherent in the coefficient of variation, and some books even encourage the researcher to employ it for comparing spreads under circumstances in which such comparisons are meaningless.

In order to illustrate the manner in which the coefficient of variation may lead to unwarranted conclusions, let us suppose that a research worker has obtained the following two sets of temperature data, using the Fahrenheit scale:

Table I

0°F.
1°F.
2°F.
2°F.
3°F.
4°F.

Table II

41°F.
42°F.
43°F.
43°F.
44°F.
45°F.

For the data of Table I the researcher finds  $M_1 = 2$ ;  $\sigma_1 = 1.414$ , and  $V_1 = \text{coefficient of variation} = (\sigma_1/M_1) = (1.414/2) = .707$ . For the data of Table II he finds  $M_2 = 43$ ,  $\sigma_2 = 1.414$  and  $V_2 = .033$ . The researcher now concludes that the mean of Table II is very representative and that there is very little relative dispersion. For Table I, he concludes that there is considerable relative dispersion and that the mean is not nearly so representative as it is for Table II. Now let us suppose that the researcher had chosen the Centigrade temperature scale instead of the Fahrenheit scale. His recordings then would have been as we list them in Tables I' and II':

Table I'

-17.8°C.
-17.2°C.
-16.7°C.
-16.7°C.
-16.1°C.
-15.6°C.

Table II'

5.0°C.
5.6°C.
6.1°C.
6.1°C.
6.7°C.
7.2°C.

The researcher now finds  $M_1 = -16.7^\circ\text{C}$ .<sub>0</sub>,  $\sigma_1 = .78$  and  $V_1 = .047$

and  $M_2 = 6.1^{\circ}\text{C}.$ ,  $\sigma_2 = .78$  and  $V_2 = .13$ . These results would require that the researcher now reverse his previous findings and conclude that the data of Table I' are less subject to fluctuations than the data of Table II'. What is the explanation of this apparent fallacy? The explanation lies in the fact, not sufficiently stressed in books on statistics, that the standard deviation is not changed if a shift of origin takes place, whereas the arithmetic mean is changed by precisely the amount of the shift. This means that we can obtain any value we wish for the coefficient of variation by simply changing the origin from which the variates are measured.

In many cases it is possible to avoid the kind of difficulty that has been illustrated above. If the researcher had used absolute temperature units, then no negative temperature readings would ever occur, and it is conceivable that the coefficient of variation would be helpful in comparing the relative spreads of temperature data. It is to be observed, however, that it is not always possible to measure variates from an origin which will permit no change from positive to negative. Consider, for example, the matter of the analysis of data on net earnings made by certain types of businesses. In a "good" year it might be that the arithmetic mean of a sample would be, say, \$10,000 and the standard deviation, \$1,000. This would give a coefficient of variation of .10 and would seem to indicate, by its smallness, that there was little relative dispersion. In a "bad" year, it is conceivable that some businesses might lose and others might make small profits so that the mean of the sample might be zero and the standard deviation, \$200. This would give a coefficient of variation of infinity. Common sense tells us that these two coefficients of variation cannot be compared. It is evident that the coefficient of variation has certain limitations and that it must be used with care. It cannot be employed with profit in all situations, and it is not independent of the manner of measurement of the data, as is the coefficient of correlation, for example.

Some books encourage the use of the coefficient of variation in order to compare the spreads of two distributions in which the variables are not the same. The practice of making such comparisons is extremely dangerous and is almost always unjustifiable. Only experience can provide man with knowledge about the degree of variability to expect in a given variable. We know, for example, that wheat grows to variable heights, but we know it does not grow to a height of twenty feet. No scientist has ever observed a

snowflake with other than six points—a zero variability. We learn about the variability of different variables by experience and observation. As Waugh<sup>1</sup> points out, the coefficients of variation for different variables tend to have certain characteristic magnitudes. He gives a table of some typical coefficients of variation in order that the reader can become acquainted with usual or expected sizes for a few commonly considered variables. This table states that the coefficient of variation for pulse rate (in man) tends to be about 14.89 per cent, while stature tends to be about 3.6 per cent. Another book, in attempting to explain the role of the coefficient of variation cites the results of a study of a group of industrial workers in which it was found that the coefficient of variation for pulse rate was 14.9 per cent and for height 4 per cent. The conclusion is reached that *for this group*, pulse rate is subject to greater dispersion than height. But, according to the table in Waugh's book, these are just about the usual size of coefficients of variation for pulse rate and height. The implication that this group of industrial workers are quite uniform as to height, but are widely scattered as to pulse rate, is entirely unwarranted. If anything, the reverse seems to be indicated, since a coefficient of variation of 4 per cent for heights is a little larger than the value given by the previously mentioned table. Experience says we usually find the coefficient of variation for heights to be about 3.5 per cent, and it is this value *given by experience* with which the 4 per cent figure should be compared. If the variable is the same, there may be times when it will be useful to compare coefficients of variation directly. If comparisons are to be made between distributions in which the variable is not the same, then experience must be made the basis for inference as to which distribution is most dispersed and not the direct comparison of the coefficients of variation.

It has been pointed out that the coefficient of variation can be made to take on any value by changing the origin. It would be true, for example, that in computing the coefficient of variation for the weight of a bushel of oranges, different results would be obtained if a container of constant weight were used, than if the weights were recorded without the container. It has also been pointed out that two or more coefficients of variation, computed from distributions of data in which the variables are not the same, cannot properly be

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<sup>1</sup> A. E. Waugh, *Elements of Statistical Methods*, McGraw-Hill, pages 81-83.

compared and such comparison made the sole basis for concluding that one distribution is more widely dispersed than the other. The question of what is a large spread and what is a small spread will have to defer to man's experience with data relative to the particular variable under consideration.

JOE J. LIVERS

*Montana State College*

## PUBLICATIONS RECEIVED

Bagley, William Chandler, Jr., *Soil Exhaustion and The Civil War*, American Council on Public Affairs, Washington, D. C., 1942. 90 pp. Cloth edition, \$2.00, paper edition, \$1.50.

Chase, Stuart, *The Road We Are Traveling—1914-1942*, The Twentieth Century Fund, New York, 1942. 106 pp. \$1.00.

Corbett, P. E., *Post-War Worlds*, Institute of Pacific Relations, New York, 1942. 208 pp. \$2.00.

Crum, William Leonard, Fennelly, John F., and Seltzer, Lawrence Howard, *Fiscal Planning for Total War*, National Bureau of Economic Research, New York, 1942. 358 pp. \$3.00.

Friedrich, Carl J., and Mason, Edward S., *Public Policy*, Vol. III, Harvard University Press, Cambridge, Massachusetts, 1942. 265 pp. \$3.00.

Gordon, Wendell C., *The Exportation of Foreign-Owned Property in Mexico*, American Council on Public Affairs, Washington, D. C., 1942. 180 pp. Cloth edition, \$3.25, paper edition, \$2.50.

Hopkins, John A., *Farm Records*, The Iowa State College Press, Ames, Iowa, 1942. 258 pp. \$2.75.

Hopkins, John A., *Elements of Farm Management*, Prentice-Hall, New York, 1941 revised edition. 489 pp. \$2.20.

Kerr, Clark, *Migration to the Seattle Labor Market Area, 1940-42*, University of Washington Press, Seattle, Washington, 1942. 182 pp. \$0.75.

Lloyd, John William, *Pan American Trade*, Interstate Publishers and Printers, Danville, Illinois, 1942. 345 pp.

Puffer, Claude E., *Readings in the Social Control of Industry*, The Blakiston Co., Philadelphia, Pennsylvania, 1942. 494 pp. \$2.75.

Stigler, George F., *The Theory of Competitive Price*, The Macmillan Co., New York, 1942. 197 pp. \$3.00.

Steiner, George A., and associates, *Economic Problems of War*, John Wiley and Sons, Inc., New York, 1942. 644 pp. \$3.50.

## REVIEWS

*Parity, Parity, Parity*, John D. Black, Cambridge, The Harvard Committee on Research in the Social Sciences, 1942. Pp. xi, 367. \$2.00.

The trilogy in the title of this book may have been adopted in part because of sales appeal but its main significance is that the author is concerned with the question of parity not merely with respect to agriculture but also to labor and capital. Current interest in these interrelationships as well as the standing of the author should encourage a deservedly wide reading of this volume. As indicated in the foreword, it is couched in non-technical language to adapt it to the general reader as well as the student of economics. Perhaps, it may not be out of place here to suggest to economists that when they read this volume they pay attention not merely to the ideas presented but also to the dress in which they appear. Economists too often adorn their ideas in such formidable armor of language that they become unintelligible to the lay mind. The book here reviewed is a happy exception.

As many readers of this Journal well know, the author is not exactly of the shrinking violet type. Some readers may take exception to the evident self-assurance which shows up in places. On the other hand, some who know him well may feel disposed to compliment him on his self-restraint in this respect in the treatise under review.

The opening chapter on "The Three Parities" lays the groundwork for his discussion. One might wish that he had made clear that agriculture, organized labor and capital as here discussed are not an all-inclusive representation of society. The second chapter does a good job in pointing out the lack of adequate understanding of interrelationships. There is food for thought for pressure groups in the suggestion that "If each group were to be granted all that it asks, no one would get more than a fraction at most of what it really seeks."

A discussion of "Agriculture Now" should help many to obtain a better picture of the agricultural industry. It is too bad that Professor Black did not place more emphasis on making clear the wide ranges frequently included in agricultural averages. After all, a sizable part of the farm population has little direct interest in the market place and shares only to a very limited extent in the cash income from the sale of products. This is an important conditioning

factor in the use and interpretation of average income figures which all too commonly is forgotten. A good descriptive picture of farm price controls and of the evolution of the parity idea is provided. The "evernormal granary" is referred to as the discovery by Secretary Wallace of "his own little Moses in the bulrushes," which may invite the observation that Mr. Wallace found his inspiration in Joseph rather than in Moses.

Several chapters comparing returns to agriculture and wage earners and parity by commodities and regions contain much valuable material. This leads to a discussion of alternative parity standards which does not seem to be altogether realistic. In agricultural circles such words as "parity" and "stabilization" may involve connotations not entirely in line with meanings given in dictionaries. It is questionable whether much of the interest in price parity has been based mainly on any ethical concept. Indications are that parity has been viewed principally as a means of raising prices for farm products. The use of the 1919-29 base for tobacco instead of 1910-14, was not regarded by its proponents as an abandonment of the parity idea (page 146) but merely was a case of shifting sights where needed to make room for higher prices. Dr. Black apparently believes that the parity idea or something akin to it will remain an important feature of farm programs for the longer run and he sets forth specifications for "a good parity standard" and proceeds to suggest some parity plans. He deserves credit for endeavoring to set up guide posts for improvement but one may be skeptical about the prospects for adoption of these ideas. The treatment seems to lose sight of the operations of political pressure and to assume that the administration will be left free to work out programs to fit the ideas set forth. Past operations support the suspicion that future parity plans will continue to be influenced by pressures and may therefore become only a very distant relative of "a properly conceived system of comparable and parity prices." In short, parity as a means of raising prices may have little in common with parity as a social principle. It is this prospect which may warrant continued emphasis on weaknesses of the parity idea in actual practice.

Dr. Black provides a good statement for the lay reader of the relationship between cost of production and price. A chapter on "Scarcity vs. Abundance" with its reliance on revenue curves may be the hardest going for the non-economist reader. The effect of reduction in output is considered by major commodities and for farm

products generally. The general conclusion on the latter is that while a reduction in total output might increase gross revenue for a year or two, it is doubted that it would increase net.

Dr. Black deals effectively with some widespread fallacies in his discussion of the farmer's interest in wages. This would be a very useful reading assignment for farm and labor leaders and politicians. He points out in connection with the farmer's interest in urban workers that "It is unemployment that hurts and employment that helps." A conclusion which ought to be given wide notice when war activity ends is that "The way in which the rest of society can help agriculture most is to get every urban dweller at work, and then provide a big vacuum in addition that will draw in the surplus farm population of the over-populated 'rural' areas" (p. 232).

The reviewer wishes that he could share the optimistic belief that "nearly everybody knows enough about inflation already to serve the purposes in hand," but unfortunately his contacts lead to a different conclusion. The actions of many ostensible leaders indicate that if they have this knowledge they are not putting it to very good use. In fact, Professor Black's observation on the slowness of high administration officials in appreciating the need for holding the cost of living in check may be a case in point. It is suggested that "a vigorous and prompt program of taxation that will reach all incomes above the \$2,000 level" is needed to check inflation. Is not an income of \$2,000 too high for an effective lower limit? There is considerable inflationary spending power in the hands of persons below the \$2,000 level, particularly of individuals with little or no family responsibility.

Dr. Black assumes that the "prevailing attitude of economists" towards price fixing is one of disfavor because it is opposed to free competition. Has there been any "Gallup poll" to determine what the attitude of economists is and why? Is it not probable that skepticism among economists over the beneficence of price fixing may spring from observations of its weaknesses in operation? Are there not grounds for feeling that too often special rather than public interest occupies the driver's seat?

Consideration of loans without recourse brings revenue curves back into the discussion. While a footnote admission of doubt regarding their validity is inserted, the author appears to use them with considerable confidence. The reviewer is more skeptical than the author about the probability that the valorization features of

the loans will be eliminated. The raising of the loan figure to 85 per cent of parity, the pressure to make it 100 per cent, the apparent disregard of the wheat dilemma, and current talk about post-war floors under prices, are straws in the wind.

Attention is given to the methods employed by the government in buying farm products and this part of the book might well receive special attention from administrators in charge of such activities, as the suggestions made are directed mainly at them.

The latter part of the book returns to a consideration of how agriculture, labor and capital are sharing in the national income during wartime. This is approached from different angles. A careful study of this analysis is recommended to representatives of agriculture, labor and industry. The conclusions do not support the contention of some farm spokesmen that agriculture has not shared reasonably well in increases during the war. The general, broad conclusion on parity seems to be quite well summed up in the following (p. 348):

"But if true parity in this sense is to be attained, it must be measured in some other way than in terms of the purchasing-power ratios of a period as distant as 1910-14. Indeed, it is doubtful if it can be measured inflexibly in terms of any period. Also any parity standard that is workable except in the short pull must use an income instead of a price measure, and a net income instead of a gross income measure, in order to take account of changing costs as well as prices."

The question of how to get and retain such a concept of parity in actual practice is still unanswered. The author has some doubts on this point and there are others whose doubts are considerably greater.

The book ends with a "Foreword to After the War." The importance of planning for peace and the post-war period is pointed out. A plea is made for "putting the common good above private or group or sectional interest." Readers generally will share in the hope that this may be done.

Enough has been said to indicate that this is a most timely book. It is stimulating and provocative. Some readers, particularly those whose thinking about the relative shares in the distribution of the national income has been influenced by their special concern for agriculture or labor, may take decided exception to certain points and conclusions. Those whose special interest myopia is not incurable, however, should find themselves stimulated into subjecting their own ideas and notions to careful analysis and scrutiny.

O. B. JESNESS

*University of Minnesota*

*Ill Fares The Land*, Carey McWilliams, Boston, Little, Brown & Co., 1942. Pp. 419. \$3.00.

Those concerned with the study of agricultural labor in this country have long regretted the lack of a volume giving a comprehensive survey of this portion of our labor force. Until recently it was almost impossible for an individual to write such a book because of the paucity of information on these workers. In the past few years, many of the gaps in our knowledge have been filled in by the researches of the Tolan and LaFollette Committees, but the reports of these groups are bulky indeed and they make diffuse reading. Carey McWilliams' book is an effort to integrate much of our knowledge of migratory farm labor and to present the information interestingly and in short compass.

As the title suggests, Mr. McWilliams looks at the conditions of farm workers with extremely dark glasses. He examines each of the important groups of migratory laborers—from the Negro vegetable harvesters of Lake Okeechobee to the hop pickers of the Willamette Valley—and in each case he finds the same depressing tale: low wages, unhealthy living and working conditions, little opportunity for rising on the agricultural ladder, and community indifference to their plight. To document his indictment, the author has relied upon a wealth of evidence available in the researches of the Department of Agriculture and state agricultural experiment stations, as well as that recorded in the hearings of the Industrial and Immigration Commissions of several decades ago, and of the more recent Tolan and LaFollette Committees. In addition, he had the opportunity to cover much of the United States and investigate farm labor conditions personally. Some of the best sections of the book are those in which he recounts his own observations.

The present conflict with its attendant reduction in the usual surpluses of farm workers has altered many of the conditions which existed in 1940 and early 1941. But even the sharp rises in farm wages which have occurred recently do not vitiate the value of this book. It is from the wretched background described here that many of our present farm labor problems arise. The unfavorable economic position of agricultural workers has been a powerful inducement for them to leave this work when defense and war production opened job opportunities elsewhere. Insofar as labor surpluses accustomed growers to wasteful utilization of available workers, they made more difficult the adjustments necessary for this period of labor shortage. If sufficient workers are to be available to cultivate

and harvest essential crops, their earnings and living conditions must be made more comparable with other laborers. Parity wages and incomes for agricultural workers must be associated with parity prices and incomes for farmers. This is the implied moral of McWilliams' argument and its realization is vital for success on the farm front.

McWilliams attempts to get at the basic causes for the relatively unfavorable position of migratory farm workers. The growing industrialization with its *Factories in the Field* replacing the family homestead is the chief villain, he thinks. Aided by technological progress which permits great mechanization, and financed by generous AAA payments and governmentally raised incomes, the commercial farmers are able to expand their holdings and utilize a hired labor force to produce crops at a fraction of the cost incurred by the smaller farmer. Fundamentally, then, the farm workers' plight is due to their relationship to the land, their lack of ownership of the means of production. Their conditions can be improved by government action which will give them the social benefits of urban workers and which will impede the growth of capitalistic farming, but such measures, Mr. McWilliams implies, can be only palliatives unless something is done about the fundamental problem.

The argument presented here is obviously challenging to our whole structure of agricultural organization and land ownership. But one wonders whether the author recognizes the full importance of the relationships of resources to population. One wonders, also, whether his disbelief that industrial opportunities for excess farm people can be maintained without war is not overly pessimistic. Certainly, however, there is sufficient truth in what he says to justify our experimentation with other modes of farm organization and operation, as in the case of the Farm Security Administration's co-operative farms.

*Ill Fares the Land* omits consideration of the non-migratory group of farm workers, a not inconsiderable number. Despite this weakness it is a valuable description of much of our agricultural manpower and the modes of its utilization. As such it will be a handy reference book for anyone who must wrestle with the problem of getting enough workers to harvest a community's crops. For the professional agricultural economist or the government official concerned with improving the lot of disadvantaged workers, it is recommended reading as the best available summary of much impor-

tant information that has only recently become generally available. Its sprightly style is not the least of its merits.

HARRY SCHWARTZ

*Washington, D. C.*

**Ecological Crop Geography**, Klages, K. H. W., New York, Macmillan Co., 1942. pp. 615. \$4.50.

This is a good book. It is written by a man who has had not only agronomic, ecological, and climatological training, but who has also, apparently, read rather widely in economics and sociology, including demography. The result is a happy and rare combination of subject matter. The outstanding weakness of the book is Chapter XXI, "Edaphic and Physiographic Factors," that is, soils and land surface. The discussion in this chapter is fairly good, but is so brief and elementary as to be quite out of proportion with the discussion of climate—14 pages as compared with 222 pages.

The book begins with a chapter defining "The Scope of Ecological Crop Geography." This is followed by a chapter on the historical background of agricultural production, which describes the progress of agriculture and associated economic and social systems from the most primitive society, through the pastoral and "hoe-culture" stages, to our modern mechanized, commercialized, and scientific systems of farming.

Then follows a brief chapter on "Population in Relation to Agricultural Development," which deals largely with ancient and modern centers of population, and includes the influences of Christianity, Mercantilism, and the Industrial Revolution in explaining the transition from the ancient to the modern civilizations. The chapter closes with a very brief discussion of "Man-land Ratio" and "Optimum Population Density."

Chapter IV is entitled "Factors Determining World Centers of Population and Agricultural Production." The discussion of the "Human Environment" with which this chapter starts, has been written under the influence of Ratzel's "Political Geography." One can also see in this chapter, particularly in the section relating to world centers of population as influenced by climatic variability, the influences of Huntington, Visher, and Taylor. The next chapter is entitled "The Social Environment." In this chapter Professor Klages approaches the subject of agronomy through a discussion of "Physiological and Social Environments," "Natural and Arti-

ficial Social Environments," "Agricultural Areas in Relation to Population and Transportation," in which Von Thunen's thesis is illustrated and developed, "Transportation as a Factor in Inter-Regional Competition," "Technological Advances Through the Improvement of Crops,—Through Improvements in Soil Management,—Through Development of Power Machinery,—and, finally, a discussion of "The Intensity of Production."

The following fifteen chapters, which constitute most of Parts II and III of the book, entitled "Physiological Environment of Crop Plants," and "The Ecological Factors," are a real contribution to our knowledge of ecology. Although most of the material in these chapters is a summary of the work of others, there is some of it which is the author's original contribution. This is as good a brief statement of the influence of climatic conditions upon the growth of crops, particularly from the geographic standpoint, as is any discussion of which the reviewer is aware.

Part IV, the "Geographic Distribution of Crop Plants," is also well done. This chapter consists of maps and descriptive matter relating to the geographic distribution of wheat, rye, barley, oats, rice, corn (in considerable detail), the sorghums, the millets, the edible legumes, potatoes and sweet potatoes, sugar crops, the oil producing crops, the fibre crops, the leguminous forage crops (with an entire chapter devoted to alfalfa and the clovers), perennial forage grasses, tobacco, hops, and buckwheat.

At the close of each chapter is a list of selected references, which are numbered in accordance with references in the text. The book includes 108 maps and graphs and 66 tables. At the close is an author's index as well as a subject index.

Although this book is evidently written primarily as a supplementary or complimentary textbook in agronomy, it is of material value to economists also, as it provides not only a description of the physical factors, but also, less adequately, of the economic and social factors influencing the distribution of the major crops. So far as the reviewer is aware, there is no previous textbook covering this field. The "Geography of the World's Agriculture," by Finch and Baker, published in 1918, presented much material corresponding to Part IV, relating to the geographic distribution of crop plants. But the "Geography of the World's Agriculture," is now out of date. Nor, so far as the writer is aware, is there any previous textbook that summarizes so adequately the influence of the physiological

environment upon the growth of plants. Professor Klages was a graduate student under Professor Burlison at the University of Illinois twenty years ago and this influence is evident in much of the volume. The author is now Professor of Agronomy at the University of Idaho and Agronomist in the University of Idaho Experiment Station.

O. E. BAKER

*Bureau of Agricultural Economics*

*Consumers' Cooperatives in the North Central States*, L. C. Kercher, V. W. Kebker, and W. C. Leland, Jr., edited by R. S. Vaile, Minneapolis, University of Minnesota Press, 1941. Pp. 431. \$3.50.

Three independently conducted research studies are combined in this volume. The first, by Kercher, affords a complete economic and sociological analysis of the Finnish-dominated cooperative movement which centers in Superior, Wisconsin. The second, by Kebker, is primarily a theoretical analysis of the consumers' cooperative form of economic organization. Leland's contribution consists of case studies of two large wholesale purchasing cooperatives located in the Twin Cities—the Midland Cooperative Wholesale and the Farmers' Union Central Exchange—which together serve several hundred local cooperative associations throughout the North Central States.

A question can be raised relative to the organic structure of the book. It would seem that the material as presented in Part II under the title, "The Regulative Accomplishments and Possibilities of Consumers' Cooperatives in the Present Economy," could well have been made Part III since this part of the book is not exclusively related to the cooperative movement in the North Central States, and since its full significance from the standpoint of the cooperative movement in the North Central States is dependent upon a careful reading of all the other material presented in the volume. In this review the more general analysis by Kebker will be left for final consideration.

Kercher opens his discussion with an analysis of the character and form of cooperative enterprise. Consumer cooperatives are grouped roughly into three broad types. First, consumers' retail distributive societies which are predominantly urban organizations serving industrial workers; second, farmers' purchasing societies

which handle sizable proportions of consumers' goods; third, consumers' special service and supply cooperatives which are organized to satisfy the more specialized needs of the consumer. In a general way the term *consumers' cooperation* is thus used rather broadly to cover any organization of the cooperative purchasing type.

Kercher points out that there have been three phases of structural development in the Finnish-initiated movement. The first phase was that of cooperative individualism where the local societies carried on their activities in virtual isolation. This was followed in 1917 by a phase of regional federation wherein a number of widely scattered societies sought to coordinate certain educational and commercial activities on a regional basis. The third phase which started about 1925 has stressed local district federation as a means for coordinating efforts of a limited number of neighboring societies. While the second phase of regional federation has occurred rather generally throughout the United States the third phase of local district federation has been more distinctly developed in the Finnish-initiated cooperative movement here discussed. These local district federations supplement the service of both local societies and the regional federations. They secure some of the advantages of more intimate relationship while obtaining certain advantages of large-scale operations. According to Kercher, "District federation is proving to be an important supplement, to but not a substitute for, regional federation. It is growing tentatively and somewhat haphazardly but for that reason is tending to take root only where the need is genuine. It is therefore a growing element of strength in the movement as a whole" (p. 115).

Kercher completes his analysis of the elements of weakness and strength in the Finnish-initiated movement with the interesting statement that the "destinies of the movement are linked more or less closely to those of democracy. But if democracy has validity in the economic as well as in the social sphere, if faith in the common man is not a misplaced ideal, if education, free thought, and free choice are more enduring than ignorance, force, or external regimentation, then this social movement has natural and persistent vitality in its make-up" (p. 136).

Before leaving the discussion of this contribution, the reviewer would like to express the opinion that its value lies in the breadth of its viewpoint which is apparent in its detailed and discriminating

analysis. The author shows that he was able to feel the aspirations of the movement without being swayed from the objectivity which is indispensable to scientific analysis.

The excellent case studies of cooperatives in Part III represent a very important part of this volume. This is recognized in the introductory part of the book with the statement, "In some ways this is the most important part of the book since nearly all of the interpretations and conclusions in Part I stem from it and much of Part II is supported by it." On the whole, these 17 case studies show how the cooperative movement in the Northwest is developing in communities of varying sizes and under diverse conditions. These studies can be advantageously examined by anyone who wishes to obtain a realistic understanding of the way in which consumers' cooperatives are evolving in this part of America.

Kebker's discussion of "The Regulative Accomplishments and Possibilities of Consumers' Cooperatives in the Present Economy" is thought-provoking, but it is more suggestive than complete. This is indicated by the chapter titles of this part of the book: "Educating the Consumer," "Meeting Monopoly and Monopolistic Competition," "Weathering Monetary Disturbances," "Adjusting to Change," "Modifying the Inequalities of Private Ownership," "The Probable Effectiveness of Cooperatives in the Present Economy," and, "The Economic Operations of a Cooperative Commonwealth."

In the final chapter Kebker has also tried his hand at analyzing the economics of a hypothetical cooperative commonwealth, the will-o-the-wisp that attracts so many students of cooperative enterprise. For the purpose of this analysis the author has endeavored to describe a completely cooperativized society functioning through a hierarchy of retail and wholesale societies which would be coordinated in a "national cooperative wholesale association" which "would be a gigantic institution with many functions, upon which would fall the duty of coordinating the economic life of the entire commonwealth. It would be owned by its constituent retail associations but in turn it would own and control all the productive and service organizations in the entire community that were not owned and conducted by the retail associations" (p. 179). It is difficult to see how a national cooperative wholesale society could have such characteristics and still provide for the democratic control by the members that has generally been conceded to be an

essential attribute of cooperative enterprise. This difficulty is recognized by the author who maintains that "the cooperative economy would face the same problems of bureaucracy that confront a socialistic economy, the political government, and the large corporation." However, he is of the opinion that "it would not be much worse" in this respect than the present economy although "it would be decidedly inferior to a perfectly competitive economy because the assumption of atomistic competition precludes the existence of large corporations with their bureaucracies" (p. 191).

The reviewer appreciates that part of this analysis endeavors to project cooperative thinking of the present into the highly speculative realm of the future and that the author would not wish to be held strictly to account as an advocate of the type of cooperative system that he tentatively outlines. At the same time it is difficult for anyone to describe an alternative economic organization of society without giving the impression that he espouses, at least in large part, such an organization as is hypothetically set up for analysis. The reviewer is of the opinion that one cannot be categorical in the description of any world for tomorrow. Incidentally, it is doubtful whether many individuals who are interested in cooperative advancement today would care for any society in which cooperation became in effect a mandatory or universal rather than a voluntary or alternative form of economic organization.

In summary, the reviewer believes that this book as a whole represents a highly significant contribution to current cooperative literature. It can be recommended to all who wish to have a more incisive knowledge of the theories and practices of consumers' cooperative enterprise.

JOSEPH G. KNAPP

*Farm Credit Administration*

*The Problems of Lasting Peace*, Herbert Hoover and Hugh Gibson, New York, Doubleday, Doran and Company, 1942, 288 pp. \$2.00.

"We did it before, we can do it again" may apply not only to the winning of the war but also to the losing of the peace. This book is an attempt by two statesmen to prevent a repeat performance in the latter respect by stimulating, during the war, enough

intelligent interest and discussion in the problems of the peace so that we will be ready for them when they come.

American farmers and the readers of this JOURNAL will be interested, therefore, in the manner in which the discussion is opened, particularly as it concerns the future of international trade. United States farmers may be said in a very real sense to have lost the last peace. The mismanagement of world affairs in the quarter century after 1914 resulted for them in a "roller coaster" ride of alternate prosperity and depression. The farmer was led up the slope of rapidly expanding production in the last war to feed the peoples fighting for Democracy; and when the victory was won he was left to a precipitate fall while those peoples went back to other sources of supply. The fall was broken during the mid-twenties, largely by loans to foreigners, but this was followed by an even greater drop when the limits of that kind of credit were reached. Now he is being led up again to feed the Democracies again embattled. He may well ponder every attempt to deal with the problems that will come with another victory.

The book contains an intelligent and valuable approach to those problems, but this is combined with a handling of specific details so confused that one wonders whether the authors understand all of the implications of their own method.

The book attempts to cover all phases of the problem of building a lasting peace. It is divided into three parts. The first two skip somewhat cavalierly through the history of international relations from the Renaissance to 1939 and find seven "dynamic forces which make for peace and war." The forces are: ideologies, economic pressures, nationalism, militarism, imperialism, the complexes of fear, hate and revenge, and the will to peace. One could wish for a more penetrating classification; but the idea of basic forces that can not be ignored if a stable peace is to be won is most persuasively presented. Peace must be built from the materials, imperfect though they are, prepared in the centuries that have passed. Only by understanding those materials thoroughly and, in particular, by recognizing their essential characteristics as distinct from their superficial aspects, can we prepare to build soundly with them. We must try neither to avenge past wrongs nor to achieve Utopia in one bound. We must, by accommodating underlying forces, build a structure of peace that will stand. To put it in another way, we must reduce the lines of strain—of human conflict—to a

minimum. To do this we must understand the conflicts. There must be open and intelligent discussion of them now—objective, tolerant, imaginative discussion—so that the peacemakers will be prepared to deal with them intelligently when the time comes.

In the third part of the book, the authors present a series of deductions from their historical researches. The peace must foster representative government in the countries where it has not flourished in the past; but such government can not be imposed by mere force. It must be nurtured. The governments of the world must take the responsibility for giving adequate economic relief to both victor and vanquished as soon as the war ends. The eventual economic structure of the world must include the restoration of free enterprise in both international trade and domestic economy, stable currencies throughout the world, the elimination of monopolies and cartels from international trade, the provision of equal access to raw materials for all countries, planned migration from over-populated to under-populated areas, freedom of the seas, the transfer of irredentist populations, the international control of Colonial areas in one form or another, disarmament, and international action to enforce peace. The peace should be built by separate international commissions dealing with colonies, trade, boundaries, debts, the machinery of peace, etc., rather than by a large gathering of statesmen writing a comprehensive solution. There must be a waiting period during which hatreds can decrease. Germany must remain a political unit and not be partitioned.

Most of these things can be generally agreed to. In their detailed treatment, however, one senses that many of the real questions have been begged rather than resolved. The authors do not seem to have fully realized that "winning the peace" implies recession by every one from some of the "basic" political positions clung to in the past.

Thus, on the important point of trade barriers, the authors state that international trade must be maximized in any stable post-war economic structure. To achieve this, they agree, fluctuating currencies, preferential trade agreements, quotas, monopolies, and cartels must be eliminated; but they then defend the principle of moderate tariffs, using arguments completely inconsistent with their preceding generalizations. They say that tariffs are a necessary source of revenue, that industries have been established under their protection which probably should be preserved, and that

most countries will want national self-sufficiency as a matter of national defense. They argue that, even if these obstacles to tariff reduction are overcome, tariffs must be retained to restrain unfair foreign competition due to low standards of living in foreign countries, low wages paid by foreign manufacturers, and the like. Tariffs must equalize cost of production. The readers of this JOURNAL will recognize in this argument one of the toughest roots of the trade-barrier evil. Not only is a true cost-of-production tariff unworkable in practice and based on a completely false concept of cost, but, if a true cost-of-production tariff could, by some miracle, be imposed, it would stop international trade and defeat the avowed objective of the authors in this field. Incidentally, it would mean no more farm exports from the United States.

On the question of free enterprise versus government control, perhaps the biggest problem of our century, the authors, while they appreciate the necessity for securing economic coordination, devote much more attention to the necessity for preserving essential personal freedoms. They feel that "men must choose their callings, bargain for their own services, save and provide for their families and old age. And they must be free to engage in enterprise so long as each does not injure his fellow man. . . . Such freedom does not mean going back to abuses." Again one can agree, but one wonders whether the authors would permit quick government action on a scale sufficient to keep enterprise operating and people employed at a time of crisis when frightened business leaders feel free to take the world's economy, and farmers with it, down the chutes again.

ROBERT B. SCHWENGER

*Office of Foreign Agricultural Relations*

*The British Tariff Movement*, Marvin E. Lowe, Washington, D. C. American Council on Public Affairs, 1942, 133 pp. Cloth, \$2.50; paper, \$2.00.

Why did Great Britain, one of the outstanding world trading countries, renounce free trade in 1931-32 after some 70 years of non-preference and non-protection? During those 70 years British economy had made great progress under the basic policy of buying food and industrial materials in the world's cheapest markets. This, in turn, gave British goods certain advantages in competing in

foreign markets with the finished manufactures of countries committed to a high tariff policy.

Dr. Lowe's book attempts to furnish the answer, or at least to trace in detail the major developments that led to this drastic reversal of British commercial policy in 1931-32. However, he does not go into the controversy of the relative merits of protection and free trade for the stated reason that professional economists have long since devoted much thought and book output to that problem. But he does note at the outset that "although British experts in general have favored free trade and deplored protection, their advice has been flagrantly violated and their platitudes relegated to the growing dump-heap of outworn economic shibboleths."

Apparently the present work is the printed book form, with possibly a few changes, of the author's doctoral dissertation in history, *The British Tariff Movement, 1910-1932*, judging from the pertinent printed abstract of 1939 by the University of Illinois. Consequently, the book contains virtually no data for the trends and aspects of Great Britain's tariff policy after 1932. For the latter, the reader is referred to such standard works as *Great Britain Under Protection* by Frederic Benham (1941) and *British Economic Foreign Policy* by J. Henry Richardson (1936).

Most American agricultural economists and those working in the field of foreign trade recognize the outstanding importance of the United Kingdom market in relation to total United States agricultural exports. Our farm exports to Britain are normally valued at around \$250,000,000 per year, representing about one-third of the total to all countries. Raw cotton, leaf tobacco, hams, lard, other pork products, fresh fruits (chiefly apples and pears), canned fruits, raisins, prunes, dried apples, barley, wheat, and rice comprise the bulk of our agricultural exports to the United Kingdom. Britain is also a very important foreign market for a wide range of United States non-agricultural products.

The Ottawa duties and those under the Import Duties Act established by Great Britain in 1932, coupled with preference for like Empire products (in most cases duty-free treatment) have militated against our trade position in the British market since that time, or at least until the outbreak of the present war in the course of which other factors (shipping facilities, exchange allocation, etc.) tend to overshadow tariff rates or Empire preference as trade restrictors. The Anglo-American trade agreement of Novem-

ber 17, 1938 (effective on January 1, 1939) represented a substantial breach in the United Kingdom's system of Empire preference but the advent of war a few months later obscured the statistical picture as to how effective the tariff reductions obtained in behalf of United States products involved would have been under normal trade conditions.

Britain's probable post-war tariff and commercial policy will be of considerable importance to the United States and vice versa. Under the terms of Article VII of the Anglo-American economic (master lend-lease) agreement of February 23, 1942, it is stipulated that conversations shall be begun at an early convenient date between the two governments as to the best means of attaining the objectives specified in the agreement. These objectives comprise, among other things, the reduction of tariffs and other trade barriers and the elimination of all forms of discriminatory treatment in international commerce. What tariff reductions are the United States likely to make and will Britain eliminate or heavily reduce Empire preference (concurrently with certain tariff reductions)?

Dr. Lowe's book is particularly valuable for background purposes in showing the factors and trends in the United Kingdom that led to the adoption of widespread protectionism, coupled with Empire preference, in 1931-32. Not among the least interesting of these developments set forth in some detail by Dr. Lowe were the left-wing Laborites' repudiation of Free Trade in the summer of 1930 (John Strachey, E. F. Wise, and Sir Oswald Moseley who became notorious in later years as England's leading Fascist). Still more sensational were the desertions from orthodox Free Trade by certain well-known Liberals, particularly that of Mr. (now Lord) John Maynard Keynes in March, 1931 who hitherto had been a stalwart free trader.

Keynes' new position evoked a great deal of criticism from certain Liberal groups and he in turn reciprocated (as indicating the temper of the times) with the following:

They have been forcing me to chew over a lot of stale mutton, dragging me along a route which I have known as long as I have known anything, which cannot, as I have discovered by many attempts, lead one to a solution of our present difficulties—a peregrination of the catacombs with a guttering candle.

Keynes, as did many other British proponents of protectionism at that time, emphasized that the abnormal times made the adop-

tion of a general protective tariff inevitable. Several of Britain's leading publicists on commercial policy, who have been very critical of the United Kingdom's protection-preference tariff system since the middle or late Thirties agree that no other recourse was open to Britain during the emergency conditions obtaining in 1931-32, but feel that with the ensuing economic upswing the liberalization of tariff policy should have been undertaken.

Dr. Lowe's book is not easy to classify. In a sense the book is for the commercial policy specialist working in the international field, more particularly the British field. On the other hand it is an interesting "case study" in the economic history of the somewhat uncommon drastic reversal of its long-established commercial policy by a great trading nation within a comparatively short period. The book should also be of interest to the political scientist working in the pertinent field. With certain qualifications, Dr. Lowe's book might be characterized as the British counterpart on a somewhat more modest scale of Professor E. E. Schattschneider's "Politics, Pressures and the Tariff," devoted to the Smoot-Hawley Tariff of 1930.

HARRY LEE FRANKLIN

*United States Tariff Commission*

*Early American Land Companies: Their Influence on Corporate Development*, Shaw Livermore, New York, The Commonwealth Fund; London, Humphrey Milford, Oxford University Press, 1939. Pp. xxx, 327. \$3.50.

The basic purpose of this study is the delineation of the ancestral institutions from which the modern American business corporation developed. The colonial period is replete with examples of two types of association—the chartered corporation or company and the voluntary partnership or association. The first was quasi public and enjoyed special privileges; the second evolved without official recognition. With the growth of popular sentiment against monopolies in the eighteenth century, it was natural that voluntary associations should come to be widely used among businessmen. The courts were slow to differentiate between the new joint stock associations and the old partnerships but the former eventually developed to the stage where only general enabling acts were needed to give them the legal status of modern corporations.

The land companies that were organized during the years 1745-1800 are surveyed with a view to illustrating the legal tendencies involved in their operations and showing the nexus between the chartered companies of the seventeenth century and the corporations as created under general statutes in modern times. The development thus described took place during a period when the trend was away from special privilege, and to this extent at least, it may be emphasized as one of the products of a general movement toward democratization. Historical analysis of the land companies illustrates the particular legal development which is the basic theme of the study, but they would be a questionable type of business enterprise to use for this purpose if they had succeeded in gaining their main objectives. Most of them were organized with a view to obtaining patents and charters from the Government, and some even sought authorization to found new colonies. If they had gained these ends, they would have been merely counterparts of the seventeenth century companies rather than progenitors of a later legal development.

The historical data utilized in this volume are derived mainly from secondary works, and very little new information on the land companies as such is presented. However, the synthesis of their histories in chapters 4 and 5 is a useful contribution. Even so, it is doubtful if the detailed tracing of transfers adds appreciably to the main objective. The political and social aspects of land speculation would seem to be outside the scope of the study, and yet there are occasional forays in this direction. In view of the extent to which the author relied on the works of historians who have labored arduously and long among the primary sources, it seems rather curious that he should be so contentious about their findings on such matters as the relationship of speculation to the frontier process. It would also seem that they are entitled to their opinions on the use of bribery and official position in the economic activities which they investigate.

This study by an economist, writing in the field of history, to illustrate a legal development is of considerable interest as an example of the coordination of the social sciences. It is a useful contribution to the three fields, but its chief value derives from the implications of the subtitle rather than the main caption.

EVERETT E. EDWARDS

*Bureau of Agricultural Economics*

*Economic Analysis*, Kenneth E. Boulding, New York, Harper and Brothers, 1941. Pp. xviii, 809. \$4.25.

For some years there has been a yawning gap in the literature of economic theory between the very elementary text designed for beginning students and the clutter of specialized monographs and periodical articles accessible only to the fully trained economist. The teacher attempting to lead his charges over this difficult and dangerous terrain has had to choose between two unsatisfactory alternatives. He could devote all his time to formal lecturing about a subject that requires informal discussion and problems for its proper comprehension; or he could assign and discuss a hodge-podge of advanced books and articles in the hope, usually vain, that some fraction of the class would struggle through to a comprehension of some fraction of the material.

Now comes a book that so neatly and effectively fills this hole that the reviewer is tempted to forego all critical comment and propose a fervent vote of thanks. The book starts with a Part I which could be mastered without any previous economic training, and which provides an excellent review from a fresh angle for those who have been over the material before. Part II contains two sets of chapters intermixed. One set, probably the most useful, lays carefully the theoretical foundations necessary to an understanding of current work on the frontiers of the subject. The other consists of what amounts to a set of monographs pushing out into territory as yet incompletely charted.

The author has done much more than a routine job of filling the demand for an intermediate text. His method of treatment, which he describes as the "imperialistic approach," is novel and to my mind very effective. The aim of the book is to provide the student with the important intellectual tools of economic analysis and to give him practice in their use. For this reason the material is organized by tools of analysis and the problems in the solution of which those tools are useful rather than in the conventional manner. Part I is, for example, centered around the definition, explanation, and use of demand and supply curves. It is limited to perfect competition and no marginal analysis is used in it whatsoever. In his applications the author makes it clear how many important economic issues can be attacked with these simple instruments alone. As each new device, conceptual or graphic, is described, problems are introduced and discussed to show how it can be used in analysis.

This gives the student a sense of the utility of economic theory which he never gets from wading through an arid "principles" text and then plunging into a volume of "problems" unilluminated by theory.

It might be supposed that by this procedure the author would lose sight of the structure of economic theory as a unit, but precisely the reverse is the case. Part I, by examining hastily most of the branches of economics with the tools of demand and supply, gives the reader a conception of the system functioning as a whole. Such a conception emerges from the classical treatises, but has been lost in all too many modern texts beneath the details of partial equilibrium analysis.

No teacher, of course, is ever satisfied with any text unless he wrote it himself. There are many things I could find to object to in this one. The coverage is a little *too* complete and the range of difficulty too wide. The elementary sections take up too much time for a second course, and the very advanced topics are too complex for most intermediate students and too hastily treated to satisfy advanced students. More important, the whole treatment of dynamic problems is to my mind unsatisfactory. There is no extended discussion of the tools of short and long run analysis, which are still more convenient for solving many problems than the newer and theoretically more satisfactory production plan approach. The theory of capital and interest, following the authors own work in this subject, obscures the distinctions between interest and profit, and between rates of return internal and external to the firm. The exposition, which is for the most part admirable throughout (as students have already testified), becomes more labored and difficult in these chapters. This reviewer would like to have found a much more comprehensive consideration of the dynamic problems of stability within particular markets and between markets than is included here.

The author does not carry his own good idea far enough. Especially in Part II he missed out on a good many uses for his tools which would make their nature and importance much clearer. There is next to nothing on the effects of imperfect competition on the buying side of the market. There are many problems in wage and rent theory which would have rounded out the analysis of types of markets. A discussion of the pricing problems of a socialist state would have brought into much sharper relief the allocative func-

tions of the price system as a whole and the welfare implications of general equilibrium analysis.

But these defects, serious as some of them are, do not weigh appreciably in the balance against the great virtues of the book in scope and method. Indeed, there is nothing with which to compare it, for it is the only thing in its field. That it partakes a little too much of both the beginning text and the monograph may be excused in the face of the great service it performs in bridging the gap between the two, and in providing training not in principles and problems but in economic analysis.

MAX MILLIKAN

*Yale University*

*Economic Survey of the Pacific Area: Part I, Population and Land Utilization*, Karl J. Pelzer, XV+215. New York, Institute of Pacific Relations, 1941. \$2.00.

The outbreak of total war in that theatre gives added importance to this volume planned on the first of a series of four of the Institute to comprise an economic survey of the Pacific area. It presents basic data on the trends in population and land use of every country fronting on the Pacific except South America. Assembled from many languages and scattered sources, both official and private, it represents a compilation that will be found useful by students, officials, business men, and, let us hope, peacemakers at the conference table.

To some extent the volume gives the impression of being a mere compilation of data, organized as it is in two long chapters devoted respectively to population and land use. Each country is thus treated twice, and the reader who uses the volume for anything more than ready reference is faced with the problem of doing his own organization of the material. In addition the tendency to realistic interpretation is dulled by the fact that the one thing which gives pertinency to the idea of a Pacific Region, the immediacy of war, is carefully avoided in all its implications.

In terms of the analysis of separate countries, the study is detailed, accurate, and critical. In addition to presenting primary source materials, the interpretation of secondary sources and controversial topics are subject to analysis and evaluation. The footnotes thus comprise an invaluable bibliography for the student. Because of the war, this work will likely remain our best source in the Pacific area for a long time.

It is to be hoped, however, that in spite of the war the Institute will be able to develop the succeeding volumes in which we shall expect the unified interpretations and conclusions lacking in the present work.

RUPERT B. VANCE

*University of North Carolina*

*Economic Shanghai: Hostage to Politics, 1937-1941.* Robert W. Barnett, New York, Institute of Pacific Relations, 1941. pp. xvi, 210, \$2.00.

In this well-documented study in the valuable Inquiry Series of the Institute of Pacific Relations, Robert W. Barnett, research associate of the International Secretariat of the Institute, reveals clearly what the Japanese siege of Shanghai, beginning on August 13, 1937, did to the industry and trade of that great entrepot of an increasingly unified China, under a progressive, efficient, and waxing Chinese Government. When the blow struck, China was definitely resurgent and Shanghai was booming.

Shanghai is the seventh largest city, and the tenth most important port, in the world. In 1934 Shanghai held 40% of the industrial capital of China, was the center of 43% of the industrial workers, and produced 50% of the total industrial output of China. In 1936-37 Shanghai took 64% of China's total imports, and shipped out 52% of China's exports. Shanghai was also China's principal center for banking activities and financed most of China's commercial relations with markets overseas.

There were three distinct municipal systems in Shanghai in 1937. 1) The International Settlement, governed by the international Shanghai Municipal Council; 2) the French Concession; 3) the Chinese Municipal Administration. The first two carried extraterritoriality to their residents, who numbered together 1,600,000 persons. The third included a population of 3,000,000.

When the Japanese struck, over 3,000,000 refugees poured into the foreign areas where, despite the best efforts of the Americans and Europeans, conditions were frightful. For instance, the International Settlement disposed of 101,047 exposed corpses in 1938 alone.

Industry, trade and shipping came immediately to a standstill. Recovery was swift, however, and the unemployed were rapidly re-absorbed and nominal wages rose. There was, however, a serious decline in real wages. This was largely due to the depreciation of

the Chinese currency, to a Japanese-controlled currency, and to the compulsory use of the Japanese military yen. Out of economic desperation many strikes were staged in 1938-39.

Japanese military men took over the control of economic activities in Japanese-occupied China. Even Japanese business men in Shanghai had come by the end of 1940 to be the unprotesting tools of the Japanese army. The Shanghai and China silk trade, on orders from Tokyo, was sacrificed to promote the purely Japanese trade in silk, by creating an artificial scarcity.

The war, the Japanese-imposed monopoly of the Shanghai customs and their enjoyment by the Japanese-sponsored Nanking Government, and the imposition of a severe coastal blockade in July 1940, ruined the most remarkable trade and shipping boom in Shanghai history. By December 1940, the index of the cost of living had risen to 579.70 as compared to 100 in 1936. "Wartime inflation," writes the author (195-6), "in part, accounted for this rise. In addition, rice, his staple food, was being confiscated in the Chinese interior by Japanese army authorities. . . . The welfare of Shanghai labor moved inexorably downwards. In contrast, the Shanghai manufacturer enjoyed, at various times between 1937 and 1941, periods of unprecedented financial prosperity. His welfare moved down, then boomed, then began to taper off at the end of 1940."

In this objective analysis of the effect of the Sino-Japanese war on Shanghai labor, industry, currency, finance, commerce, and shipping supported by admirable tables, and with considerable human material, the author stresses the intricate connections of Shanghai with the world, and its sensitive reactions to power politics and power economics round the world, as the conflict spread.

The sub-title, *Hostage to Politics*, both world and Far Eastern politics, is amply justified throughout and summarized by the author in these words (110): "Thus was shown Shanghai's dependence not only upon local and military developments but also upon broad economic and political developments in the Far East and in the world at large."

This volume furnishes further proof of the real, but hitherto unorganized, interdependence of the peoples of the world, and of the indivisibility of peace, of economic security and of prosperity in the world.

HUNTLEY DUPRE

*University of Kentucky*

## NEWS ITEMS

The office of the New England Research Council on Marketing and Food Supply was moved on September 1 from Boston, Massachusetts, to Beach Hall, Storrs, Connecticut. The program will be continued as in the past, but with considerable change in emphasis. War-time research in the transportation and marketing of milk and other agricultural products in New England will be the major project. Alan MacLeod continues as Executive Secretary.

**REGIONAL OFFICES FOR AGRICULTURAL MARKETING ADMINISTRATION.** On September 1, 1942, the Agricultural Marketing Administration established regional headquarters at New York City, Atlanta, Chicago, Des Moines, Dallas, Denver, and San Francisco. Increased work incident to the war made the action necessary. Shifting of responsibilities began September 15 when regional administrators took over the field functions of the Distribution Branch, part of the field functions of the purchase Branch, and certain other functions. More shifting will follow.

The seven regional administrators and their headquarters follow:

Lester J. Cappleman, Southwest Region, headquarters at Dallas.

Merritt A. Clevenger, Pacific Coast Region, headquarters at San Francisco.

Buell F. Maben, Northeast Region, headquarters at New York City.

E. O. Mather, Rocky Mountain Region, headquarters at Denver.

James H. Palmer, Southern Region, headquarters at Atlanta.

E. O. Pollock, Great Lakes Region, headquarters at Chicago.

J. S. Russell, Midwest Region, headquarters at Des Moines.

**LATIN AMERICAN OFFICIALS STUDY METHODS IN UNITED STATES.** Latin American agricultural officials, who will spend 10 months in the United States studying agricultural economics and administration of United States government agricultural program, have arrived in the United States. These officials are participating in a training program for Latin Americans being carried on in the Bureau of Agricultural Economics under the administration of Eric Englund, Assistant Chief of the Bureau.

The course of training being provided these officials and others began with a fairly detailed orientation in the activities of the Department of Agriculture and closely related government agencies. This orientation period, which began in October and is continuing through November, will be followed by individual investigation of specific activities. These investigations will take the officials to many parts of the country where they will work with government agencies and programs. Around May 1, the trainees will return to Washington for an intensive survey of the subject matter and major techniques of agricultural economics.

The Latin American agricultural officials are working in many different fields of agriculture in their own country. The countries that they represent, their names and official activities are as follows:

*Argentina*, Juan B. Pelayo, Chief of the Division of Livestock, Ministry of Agriculture.

*Bolivia*, Jorge Alcazar-Ampuero, will be head of a newly established Bureau of Agricultural Economics upon his return to Bolivia.

*Brazil*, Arthur Torres Fil'ho, Head of the Bureau of Agricultural Economics in the Department of Agriculture.

*Chile*, Hugo Luciano Travelli, evaluator of all Chilean landed estates offered for sale to the Bank of Agricultural Colonization, and also a professor at the University of Chile, in the College of Agriculture.

*Colombia*, Martin Mira, agronomist for the Bureau of Rural Economy in the Ministry of National Economy.

*Costa Rica*, Luis Cruz Bolanos, Director of the National Committee of Agriculture.

*Cuba*, Casto Ferragut-Leono, Assistant to Chief of the Office of Emergency Agricultural Planning.

*Dominican Republic*, Rafael Donatello Herrera-Guerrero, technical advisor in the Department of Agriculture.

*Guatemala*, Hector Manuel-Sierra, professor at the School of Agriculture in Chimaltenago.

*Honduras*, Robert Arellano-Bonilla, special researcher in dry farming suitable for the tropics, as well as special investigator in cotton, alfalfa and sugar production.

*Mexico*, Ramon Fernandez, Professor of Agricultural Economics at both the National School of Agriculture and the School of Economics, and author of a number of books on Agricultural Economics.

*Paraguay*, Francisco Ferrario, member of the Board of Directors of the Agricultural Bank.

*Panama*, Senorita Ofelia Hooper, author of "Rural Social Life in Panama," which has attracted considerable attention in the United States as well as Central American Republics.

*Peru*, Alajandro MacLean-Estenos, head of a division at the Department of Agriculture, author of a number of books, and in charge of all agricultural publications for the Peruvian Department of Agriculture.

*El Salvador*, Francisco Aquino, Jr., land and loan appraiser in the Mortgage Bank of El Salvador.

*Uruguay*, Roberto Grana-Carballo, technical advisor to the Bureau of Agricultural Economics and Statistics.

*Venezuela*, Hector J. Santaella-Guerra, recently doing research and statistical work for the office of Commercial Attaché of the United States Embassy.

**FLOOD CONTROL PERSONNEL TRANSFERS.** More than fifty members of the Flood Control Staff of the Bureau of Agricultural Economics have transferred to other positions during the past several months. The War Production Board took the greatest number of staff members transferring. In their new positions these men will carry on short-time economic research having to do with the production of vital commodities and their use, and with the determination of future allotments to civilian use. Those joining the War Department Corps of Engineers will assist with problems of land

acquisition for war purposes, and with improvement of air fields, military camps, naval bases and other matters of immediate significance. Many economists joining other agencies will also make direct contributions to the war effort.

Staff economists and their new posts are as follows:

Myron E. Andrews	Industrial Economist	War Production Board
Harry R. Barton	Associate Appraiser	War Dept. Corps of Eng.
Roland C. Bevan	Agri. Economist	Soil Conservation Service
Chester A. Biggers	Asst. Appraiser	War Dept. Corps of Eng.
C. J. Bradley	Agri. Economist	Rural Elec. Admn.
L. B. Christiansen	Junior Economist	General Land Office
R. J. Clary	Jr. Agri. Economist	Soil Cons. Service
Spencer R. Cooley	Associate Appraiser	War Dept. Corps of Eng.
Hobard S. Cooper	Industrial Economist	War Production Board
Milton I. Coven	Junior Economist	War Production Board
Julius C. Deubner	Associate Economist	Federal Security Agency
Bruce J. Downey	Appraiser	War Dept. Corps of Eng.
Vern H. Eliason	Asso. Statistician	Navy Department
George Forby	Asso. Business Economist	Office of Price Admn.
George R. Fulton	Appraiser	War Dept. Corps of Eng.
G. R. Grange	Asst. Agri. Economist	Agri. Marketing Admn.
Orval Harden	Assistant Economist	Soil Cons. Service
F. H. Harper	Principal Indus. Economist	War Production Board
V. W. Hitchcock	Junior Economist	Bureau of Reclamation
Thomas B. Howard	Assistant Economist	War Production Board
Print Hudson	Principal Negotiator	U. S. Civil Service Comm.
Donald R. Keene	Assistant Appraiser	War Dept. Corps of Eng.
Lawrence E. Kindt	Sr. Industrial Economist	War Production Board
J. K. Kipp	Jr. Agri. Economist	Soil Cons. Service
Charles N. Lane	Associate Economist	Farm Credit Admn.
H. Rex Lee	Sr. Agri. Economist	War Relocation Authority
Lewis E. Long	Sr. Industrial Econ.	Office of For. Agri. Relations
D. H. McVey	Business Economist	War Production Board
Herman Matisoff	Sr. Industrial Econ.	Office of Price Admn.
Joe H. Miller	Associate Appraiser	War Production Board
James L. Minor	Asso. Agri. Economist	War Dept. Corps of Eng.
C. L. Naffziger	Sr. Appraiser and Negotiator	Agri. Marketing Admn.
James M. Noel	Asso. Agri. Economist	War Dept. Corps of Eng.
R. V. Oliver	Industrial Economist	Agri. Marketing Admn.
Jesse T. Palmer	Industrial Economist	War Production Board
W. W. Pawson	Assistant Appraiser	War Production Board
M. F. Peightal	Associate Appraiser	War Dept. Corps of Eng.
Sidney L. Price	Junior Economist	War Dept. Corps of Eng.
E. L. Rasmussen	Associate Appraiser	General Land Office
John W. Red	Senior Economist	War Dept. Corps of Eng.
L. H. Rhodes	Associate Economist	Office of Price Admn.
Glen R. Ruggles	Principal Economist	War Production Board
Jesse T. Sanders	Associate Negotiator	War Production Board
E. B. Smith	Junior Economist	U. S. Civil Service Comm.
James V. Son	Sr. Industrial Economist	Agri. Adjustment Admn.
E. L. Struwe	Assistant Economist	War Production Board
Winthrop S. Thomas	Appraiser	Farm Credit Admn.
Harry A. Ward	Sr. Industrial Economist	War Dept. Corps of Eng.
C. F. Wehrwein	Economic Analyst	War Production Board
A. B. West	Associate Business Economist	Bureau of Reclamation
B. L. Willmore	Agricultural Economist	Office of Price Admn.
M. F. Woodruff		Soil Cons. Service

**Bushrod W. Allin**, former Head of the Division of State and Local Planning, is now Special Assistant to the Chief of the Bureau of Agricultural Economics and Liaison Officer of the Bureau with the Office of Price Administration.

**I. W. Arthur** is in Washington, on leave from Iowa State College for a short period, as consultant with the meat section of the Office of Price Administration.

**Frank D. Barlow, Jr.**, of the Atlanta Office of the Division of Farm Management and Costs, Bureau of Agricultural Economics, has transferred his activities to the Louisiana State University for work in the Department of Agricultural Economics.

**Fred J. Beard** was appointed August 17, 1942, as Marketing Specialist in the Agricultural Marketing Administration, to take charge of the livestock and meats standardization work in the Livestock Branch. Before joining the Administration, Dr. Beard was employed for ten years at Iowa State College, and prior to that for thirteen years at Oklahoma Agricultural and Mechanical College, in both colleges in the livestock division.

**R. Hurt Berryman**, formerly of the Division of Farm Management and Costs, Bureau of Agricultural Economics, has transferred to the Production Goals Division, Office of Agricultural War Relations, as Senior Agricultural Economist.

**W. K. Bing** has resumed his duties as Assistant Professor in Agricultural Economics at Clemson College, after having spent a year in graduate study at the University of Chicago.

**E. Hjalmar Bjornson** went to Iceland in December, 1941, to represent the Agricultural Marketing Administration on Lease-Lend matters. Before he came to the Agricultural Marketing Administration he was Information Specialist in the Bureau of Agricultural Economics and the Farm Credit Administration.

**John H. Bondurant**, Research Assistant in the Department of Farm Economics, has returned to the University of Kentucky after having completed a year of study at Cornell University.

**C. A. Boonstra**, formerly instructor in Agricultural Economics at Louisiana State University, has been employed by the Bureau of Agricultural Economics in Washington as Information Specialist.

**John C. Bower** has returned to Montana State College as Assistant Professor in Agricultural Economics, after spending some time with the Farm Security Administration as Associate Agricultural Economist in Denver.

**V. V. Bowman** has been appointed as Extension Marketing Specialist in the College of Agriculture, University of Florida.

**H. C. Bradshaw**, who has been attending Harvard University during the past year under a General Education Board Fellowship, has resumed his duties as Economist in Farm Taxation, Texas Agricultural Experiment Station, Agricultural and Mechanical College of Texas.

**Willard O. Brown**, Associate Agricultural Economist, Division of Agricultural Finance, Bureau of Agricultural Economics, has transferred to the State Department and is now stationed at London as assistant to Lloyd V. Steere.

Frank A. Buckley, formerly instructor in the Agricultural Economics Department, Texas Agricultural and Mechanical College, recently resigned as field man with the Southwestern Regional Land Tenure Research Project, to accept a position as Marketing Specialist, Peanut Marketing Program, Agricultural Marketing Administration, with headquarters at Gorman, Texas.

Gordon E. Burks is employed by the Southwestern Land Tenure Research Project as field man in Texas.

John M. Cassels, who was Head of the Division of Marketing and Transportation Research, Bureau of Agricultural Economics, from February to July, has accepted a position in the Division of Food Requirements of the Office of Agricultural War Relations.

S. L. Clement, Associate Agricultural Economist, North Carolina State College of Agriculture, has resigned to accept a position with the Office of Price Administration.

James W. Coon has been placed in charge of the newly created Wool Division of the Livestock Branch of the Agricultural Marketing Administration. Mr. Coon was previously with the Farm Credit Administration where he was a Senior Agricultural Economist.

V. A. Ekstrom, formerly an Associate in Fruit and Vegetable Marketing in Agricultural Economics, University of Illinois, has accepted a position as Superintendent of Markets, Illinois Department of Agriculture, with headquarters at Springfield, Illinois.

Leo Fenske, who was Assistant Farm Economist at Idaho, has resigned to accept a similar position at the University of Tennessee.

W. T. Ferrier has returned to his position as Associate Agricultural Economist at Clemson College, having served six months as Consultant in the Office of Price Administration, Washington, D. C.

Elvin B. Fickel has been appointed Instructor in Agricultural Economics, College of Agriculture, University of Tennessee.

Paul J. Findlen, formerly Instructor in Marketing, Cornell University Agricultural Experiment Station, is now Senior Extension Economist (Fruit and Vegetable Marketing), Economics Section, Extension Service, Washington, D. C.

Richard Gabel, formerly with the Office of Price Administration, has been appointed Assistant Economist with the Division of Marketing and Transportation Research, Bureau of Agricultural Economics, to work on fruits and vegetables.

J. R. Harris, a graduate of the class of 1942, University of Illinois, has been added to the staff of the Department of Agricultural Economics, as a field man on the detailed cost route.

Harold Halcrow has returned as Assistant Professor in Agricultural Economics, Montana State College, for the year 1942-43, after spending a year of study at the University of Chicago.

Ernest P. Heiby, who was with the Department of Rural Economics, Ohio State University, for a number of years, is now connected with the United States Civil Service Commission in Washington, as an Associate Examiner in Economics.

W. T. Hicks, former State Representative of the Bureau of Agricultural Economics at Clemson College, has accepted a position as Senior Economist in the Bureau of Foreign and Domestic Commerce, Washington, D. C.

Erling Hole, formerly of the Division of Farm Management and Costs, Bureau of Agricultural Economics, has gone to the Production Equipment Division, in the office of Agricultural War Relations, as Senior Agricultural Economist.

Harold F. Hollands, Professor in Agricultural Economics, Montana State College, has been given leave of absence for the duration to be Principal Industrial Specialist, Cereals Division, War Production Board, located in Washington, D. C.

Paul Huefner, who was in charge of the statistical and office work at the Department of Agricultural Economics, Utah State Agricultural College, accepted a position on July first with the Office of Price Administration, as Assistant Regional Price Economist at the Regional Office in Denver, Colorado.

Roy E. Huffman has been appointed Instructor in Agricultural Economics at Montana State College for 1942-43. He formerly was Associate Agricultural Economist with the Farm Security Administration at Williston, North Dakota.

Phillip E. Jones, formerly graduate student at Harvard, has been appointed Associate Professor of Agricultural Economics at Alabama Polytechnic Institute.

Magnus R. Johnson has been appointed Assistant Agricultural Economist, University of Tennessee, in cooperation with the Agricultural Marketing Administration.

Sherman E. Johnson, Head of the Division of Farm Management and Costs, Bureau of Agricultural Economics, has recently assumed the responsibilities of Chief of the Production and Supplies Branch, Office of Agricultural War Relations. He will continue as Head of the Division of Farm Management and Costs.

V. Webster Johnson has been named Acting Head of the Division of Land Economics, Bureau of Agricultural Economics, to succeed Hugo C. Schwartz, who transferred recently to serve as Assistant Director of the Federal Public Housing Authority in Cleveland, Ohio.

Broder F. Lucas, Forest Economist, has joined the staff of the Department of Rural Economics and Sociology at the University of Arkansas to engage in research in the economics of forestry. The work involved is supported in part by General Education Board funds.

W. E. McCullough has accepted a position with the Southwestern Land Tenure Research Project as field man in Texas.

Smith McIntire, formerly State Representative of the Bureau of Agricultural Economics, Orono, Maine, since July Secretary of the Maine USDA War Board, has been appointed Extension Economist, University of Maine, effective November 1, 1942, to fill the vacancy caused by the resignation of D. W. Reed.

Gerald J. Matchett, formerly with the Bureau of Foreign and Domestic

Commerce, Department of Commerce, has been appointed Economist in the Division of Marketing and Transportation Research of the Bureau of Agricultural Economics.

H. R. Miller, formerly State Representative of the Bureau of Agricultural Economics in New Jersey, is now Senior Extension Economist (Dairy and Poultry Marketing), Economics Section, Extension Service, Washington, D. C.

T. R. Moberg has joined the staff of the Department of Rural Economics and Sociology at the University of Arkansas as Assistant Forest Economist.

John Muelhlbeier, formerly State Representative of the Bureau of Agricultural Economics for North Dakota, has accepted a position as Agricultural Economist with the Division of Land Economics, Bureau of Agricultural Economics, Northern Great Plains, with headquarters in Lincoln, Nebraska.

W. H. Nicholls, of Iowa State College, spent a few weeks in August as consultant with the meat section of the Office of Price Administration.

E. J. Niederfrank, Assistant Professor in Agricultural Economics and Rural Sociology of the University of Maine, has been granted a year's leave of absence to pursue graduate work at the University of Wisconsin.

W. C. Ockney, formerly Senior Extension Economist (Fruit and Vegetable Marketing), Economics Section, Extension Service, Washington, D. C., is now Chief, Food Section, Consumers' Program Branch, Division of Civilian Supply, War Production Board.

A. D. Oderkirk of Iowa State College spent a few weeks in August as consultant with the poultry section of the Office of Price Administration.

H. S. Perry, Ocean Transportation Specialist, formerly with the Division of Marketing and Transportation Research, has taken a position with the Bureau of Investigation and Research, an independent government agency.

J. G. Powers, formerly Assistant Professor of Cotton Marketing in the Agricultural Economics Department, Texas Agricultural and Mechanical College, has resigned to accept a commercial position.

D. W. Reed, formerly State Extension Economist in Marketing, University of Maine, is now in charge of obtaining raw materials (vegetables) for canning for H. C. Baxter & Brother Canning Company, Brunswick, Maine.

R. R. Renne, Head of Department of Agricultural Economics, Montana State College, has been appointed Price Officer of the Office of Price Administration for the State of Montana, and is located at Helena, Montana. O. A. Parsons is Acting Head of the Department of Agricultural Economics at Montana State College in Dr. Renne's absence.

G. B. Robinson, former State Representative of the Bureau of Agricultural Economics in New York, is now with the Department of Commerce of the State of New York, at Albany.

M. C. Rochester has been granted an extension of his leave of absence for graduate study. He is on a General Education Board fellowship at the University of Wisconsin.

R. W. Roskelley, Associate Professor in the Department of Economics, Sociology and History, Colorado State College, was released from two-thirds of his duties, beginning August 1, to assist in the educational program among farm groups by the Western Policy Committee.

Donald R. Rush, formerly of the Division of Farm Management and Costs, Bureau of Agricultural Economics, has become a Principal Administrative Officer in the Commodity Credit Corporation.

T. W. Schultz attended the Second Inter-American Conference of Agriculture at Mexico City, July 6 to 16, as a consulting delegate. Dr. Schultz has also accepted an invitation to serve as a member of the Advisory Committee on Inter-American Cooperation in Agricultural Education. The purpose of the committee is to advise the Department of State and the Coordinator of Inter-American Affairs regarding agricultural education, and to stimulate the interest of the land-grant colleges of the United States in Inter-American studies, and the exchange of students and other personnel.

Roy Sellers, formerly State Extension Economist in Marketing (Fruits, Vegetables, and Farm Crops), Extension Service, Little Rock, Arkansas, is now with the War Relocation Authority, Jerome, Arkansas.

Geoffrey Shepherd of Iowa State College spent August in Washington with the Commodity Credit Corporation.

W. B. Silcox, formerly Senior Extension Economist (Dairy and Poultry Marketing), Economics Section, Extension Service, Washington, D. C., is now Chief of the Statistical Analysis Unit, Dairy Products Section, War Production Board.

Ross J. Silkett, formerly State Representative of the Bureau of Agricultural Economics in Missouri, is now a Senior Agricultural Economist in the Economic and Credit Research Division of the Farm Credit Administration, Kansas City, Missouri.

P. L. Slagsvold, formerly of the Denver Office of the Division of Farm Management and Costs, Bureau of Agricultural Economics, has transferred to the Office of Civilian Supply, War Production Board, as Assistant Branch Chief of the Consumers' Program Branch.

Walter H. Stolting has transferred from the Division of Marketing and Transportation Research, Bureau of Agricultural Economics, to the War Department.

Marjorie Hill Smythe has been elected as Instructor and Assistant Economist in the Agricultural Economics Department, South Dakota State College.

F. L. Thomsen, formerly Associate Head of the Division of Statistical and Historical Research, Bureau of Agricultural Economics, was appointed Head of the Division of Marketing and Transportation Research, effective August 1.

D. E. Timmons has resigned as Extension Marketing Specialist, University of Florida Agricultural Extension Service, to accept a position with Carl Byoir and Associates, Incorporated, New York, N. Y.

Robert L. Tonz, formerly of Iowa State College, has been appointed Assistant Agricultural Economist, University of Tennessee.

**R. H. Varney**, formerly State Extension Economist, University of Vermont, is now Assistant Dean of the College of Agriculture there in charge of research work.

**Harold A. Vogel**, formerly Assistant to the Head of the Division of State and Local Planning, Bureau of Agricultural Economics, is now Head of the Division of Program Analysis and Development in the Bureau.

**Eliot O. Waples** has joined the Agricultural Economics teaching staff at Purdue University, where he is teaching courses in Farm Accounting and Agricultural Finance. He came to Purdue University from the University of Wisconsin.

**James M. Ward** has been appointed Instructor of Agricultural Economics in the Texas Agricultural and Mechanical College. He will teach the courses in cotton classing and marketing, formerly taught by J. G. Powers.

**W. Gordon Webner**, formerly with the War Production Board, has been appointed Assistant Economist in the Division of Marketing and Transportation Research, Bureau of Agricultural Economics, to work on truck transportation problems.

**H. A. White**, Assistant Agricultural Economist on the staff of the South Carolina Experiment Station, has been appointed, in addition, Agent in the Agricultural Marketing Administration. He will divide his time on research on cotton marketing problems, and the cotton grade and staple work in the Agricultural Marketing Administration.

**M. N. (Newt) Williamson**, Assistant Agricultural Economist, U. S. Department of Agriculture, formerly stationed at the Texas Agricultural Experiment Station, is now on leave attending the Army Quartermaster Course at Harvard University.

**J. E. Wills**, formerly State Representative of the Bureau of Agricultural Economics in Tennessee, has been added to the staff in Agricultural Economics, University of Illinois, as Assistant Professor of Agricultural Economics Extension.

## HONOR ROLL

### AGRICULTURAL ECONOMISTS IN THE ARMED SERVICES OF THE UNITED STATES\*

Abernathy, W. L.	Clemson College	Army
Bailey, Warren R.	Bur. Agri. Econ. USDA	Army
Barre, Claude B.	Agri. Marketing Admn. USDA	Army
Black, Guy	Agri. Marketing Admn. USDA	Army
Blauthut, Bernard B.	Bur. Agri. Econ. USDA	Army
Bokina, Carl J.	Bur. Agri. Econ. USDA	Army
Bookhout, Byron B.	Purdue University	Army
Bortfeld, C. F.	North Dakota Agri. College	Navy
Breimyer, Harold F.	Bur. Agri. Econ. USDA	Navy
Briggs, Royal Jay	South Dakota State College	Navy
Carels, J. Vincent	Agri. Marketing Admn. USDA	Army
Carpenter, John C.	Agri. Marketing Admn. USDA	Army
Chambliss, R. L.	West Virginia University	Navy
Chute, Gordon	Tennessee Valley Authority	Navy
Clark, Dale D.	Federal Security Admn.	Navy
Cleveland, A. A.	Soil Conservation Service	Navy
Cochran, Willard	Office of Price Admn.	Navy
Coffman, Roy H.	Agri. Marketing Admn. USDA	Army
Cravens, M. E.	Texas A. & M. College	Army
Curtis, W. D.	Louisiana State University	Army
Davenport, John M.	Bur. Agri. Econ. USDA	Army
Davis, George B.	Oregon State College	Marine Corps
Dodds, John Parry	Massachusetts State College	Navy
Dodge, W. A.	University of Vermont	Army
Doering, William F.	Agri. Marketing Admn. USDA	Army
Doll, R. J.	Kansas State College	Army
Douglis, Auvin	Agri. Marketing Admn. USDA	Army
Erhlichman, Isadore	Bur. Agri. Econ. USDA	Army
Ettesvold, W. L.	North Dakota Agri. College	Army
Fraser, Gordon O.	Purdue University	Army
Fruin, E. G.	University of Illinois	Army
Gans, A. R.	Farm Credit Admn.	Army
Garnett, Gwynn	Farm Credit Admn.	Army
George, Arthur G.	University of Nebraska	Army
Goodsell, Gordon H.	Agri. Marketing Admn. USDA	Army
Hamilton, Richard A.	Bur. Agri. Econ. USDA	Navy
Hannah, H. W.	University of Illinois	Army
Hannawald, Emmett B.	Bur. Agri. Econ. USDA	Army
Hedlung, E. C.	University of Illinois	Army
Henry, Donald L.	Purdue University	Army

\* Only Agricultural Economists reported to the Editor as having joined the armed services since the publication of the August issue of the JOURNAL are included in the list. See the August issue for names of persons previously reported.

Hill, Leon W.	Bur. Agri. Econ. USDA	Army
Huhn, John R., III	Agri. Marketing Admn. USDA	Army
Hull, Willis D.	Agri. Marketing Admn. USDA	Army
Jackson, Elmo	Office of Price Admn.	Army
Kayser, W. C.	University of Illinois	Navy
Kinsinger, K. E.	University of Illinois	Army
Kirkbride, John W.	Bur. Agri. Econ. USDA	Army
Koffsky, Nathan M.	Bur. Agri. Econ. USDA	Army
Kunz, Jacob P.	Agri. Marketing Admn. USDA	Army
Lanham, Ben T.	Alabama Polytechnic Institute	Army
Larimore, Donald E.	Agri. Marketing Admn. USDA	Army
Legg, Sidney B.	Bur. Agri. Econ. USDA	Navy
Leonardson, Roy W.	Farm Credit Admn.	Army
Light, Robert C.	Bur. Agri. Econ. USDA	Army
Liles, J. L., Jr.	Alabama Polytechnic Institute	Navy
Little, Edward S.	Agri. Marketing Admn. USDA	Navy
McClendon, Frank C.	Agri. Marketing Admn. USDA	Army
Mason, Jesse A.	University of Nebraska	Army
Morgan, W. E.	Texas A. & M. College	Army
Morthland, R. J.	University of Connecticut	Army
Motts, George N.	Michigan State College	Army
Neal, Roy L.	Agri. Marketing Admn. USDA	Navy
Page, William	Agri. Marketing Admn. USDA	Army
Patterson, James L.	Agri. Marketing Admn. USDA	Army
Paulhus, Norman G.	Bur. Agri. Econ. USDA	Navy
Peterson, Byron	Bur. Agri. Econ. USDA	Army
Proctor, Campbell	Agri. Marketing Admn. USDA	Army
Robert, Shelby A., Jr.	Bur. Agri. Econ. USDA	Navy
Robinson, Thomas C. M.	Bur. Agri. Econ. USDA	Army
Rosa, Joseph	Bur. Agri. Econ. USDA	Army
Rowan, Waldo S.	University of Tennessee	Army
Schwartz, George T.	Bur. Agri. Econ. USDA	Army
Shaw, Herbert O.	Bur. Agri. Econ. USDA	Army
Shinn, Lloyd B.	Bur. Agri. Econ. USDA	Army
Smith, Norman L.	Bur. Agri. Econ. USDA	Army
Smythe, Limen T.	South Dakota State College	Army
Sturgis, D. C.	Clemson College	Army
Sutherland, M. H.	Clemson College	Army
Swedburg, James H.	Bur. Agri. Econ. USDA	Army
Taylor, Henry M.	Bur. Agri. Econ. USDA	Army
Telko, Andrew R.	Agri. Marketing Admn. USDA	Army
Thomas, C. D.	North Carolina State University	Army
Thornborough, A. A.	Office of Price Admn.	Army
Tod, Carrel I.	Agri. Marketing Admn. USDA	Army
Vickery, Raymond E.	Bur. Agri. Econ. USDA	Army
Williamson, Marion N., Jr.	Bur. Agri. Econ. USDA	Army
Woodin, M. D.	Louisiana State University	Navy
Woodrow, Wilson R.	Bur. Agri. Econ. USDA	Army
Woods, Charles K.	Bur. Agri. Econ. USDA	Army

## TENTATIVE PROGRAM—AMERICAN FARM ECONOMIC ASSOCIATION MEETING

CLEVELAND, DECEMBER 29-31, 1942

Because of the interruption in program making and the delays due to the war and other circumstances, it is not possible to present the completed program for the Cleveland meeting in this issue of the JOURNAL. *The complete program will be mailed to the voting members with the ballots.*

*December, 29, 1942*

### 10 A.M. *Price Policy and Price Control*

John D. Black, Harvard University

“Agriculture under the New Price Policy”

A. C. Hoffman, Office of Price Administration

(Title of paper to be supplied)

### 2 P.M. *1943 Production Goals*

Sherman E. Johnson and Neil Johnson, Bureau of Agricultural Economics

“Resources Available for Agricultural Production in 1943”

— “Techniques for Achieving the Agricultural Goals for 1943”  
(Speaker to be announced)

### *Reorientation of Agricultural Economics Theory*

Theodore W. Schultz, Iowa State College

“Redirecting Our Farm Policy”

Conrad H. Hammar, University of Missouri

“Agriculture in an Expansionist Economy”

### 5 P.M. Meeting of the Executive Committee

### 8 P.M. Round Tables

#### I. *Farm Management and Production Goals*

- (a) Where can we best increase our food production?
- (b) Contribution of the F.S.A. to production.
- (c) Relative efficiency of large and small farms.

#### II. *Land Tenure*

- (a) Current trends in tenure relations to meet war time conditions  
(1) in the Corn Belt—Rainer Schickele; (2) in the Cotton Belt—C. O. Brannen.
- (b) The Southwestern Land Tenure Research Project—H. C. Hoff sommer.
- (c) Work and Plans of the North Central Regional Land Tenure Committee—H. C. M. Case.

#### III. *Teaching Agricultural Prices*

Content and division of subject matter in (1) an elementary course of agricultural prices, (2) advanced price courses.

*December 30***9 A.M. Business Meeting****10:30 A.M. *Marketing and Distribution***

F. L. Thomsen, Bureau of Agricultural Economics

"The Effect of War Conditions on the Marketing of Farm Products"

Don Hammerberg, Milk Administrator, State of Connecticut

"Wartime Problems in the Transportation of Farm Commodities"

*Land Economics*

John H. Bennett, Secretary to the Land Committee, National Resources Planning Board

"A Desirable Wartime Land Policy"

G. H. Craig, Montana State College

"Effects of War Developments upon Land Utilization with Special Emphasis on the Western States"

**12:30 Luncheon—American Farm Economic Association**

Rural Sociological Society

American Association for Labor Legislation

*Topic: What shall be the legal status of the permanent agricultural laboring class in the United States? (Speaker to be announced)***2:30 Joint Meeting with the American Economic Association***Organized Labor and the Farmer*

Kenneth Parsons, University of Wisconsin

"The Basis for the Growing Tension between Labor and Agriculture"

Lloyd Reynolds, Johns Hopkins University

"Farm Price—Industrial Wage Parity"

**5:00 P.M. Meeting of the Editorial Council****8:00 P.M. Round Tables****I. Farm Labor and Agricultural Production:** The farm labor situation and its effect on agricultural production in the United States and Canada**II. The Land Market under the Impact of the War**

Mark Regan, Bureau of Agricultural Economics

"Recent Developments in the Farm Real Estate Market"

W. G. Murray, Iowa State College

"Land Value Controls"

**III. Agricultural Statistics in Wartime**

Eric Englund, Bureau of Agricultural Economics

"The Role of Statistics in Agricultural Policy"

George Harrell, Bureau of Agricultural Economics

"Prices Paid by Farmers and their Role in Agricultural Price Control"

**IV. Farm Management and Production Goals**

Suggestions (a) for a research program, (b) for an extension program.

*December 31*

**8 A.M. Breakfasts**

**10 A.M. Post-War Planning**

F. F. Elliott, Bureau of Agricultural Economics

"Agriculture When the War Ends"

J. E. Lattimer, Macdonald College, Quebec

"Post-War Planning in Canada"

**12:30 Annual Dinner—(Speaker to be announced)**

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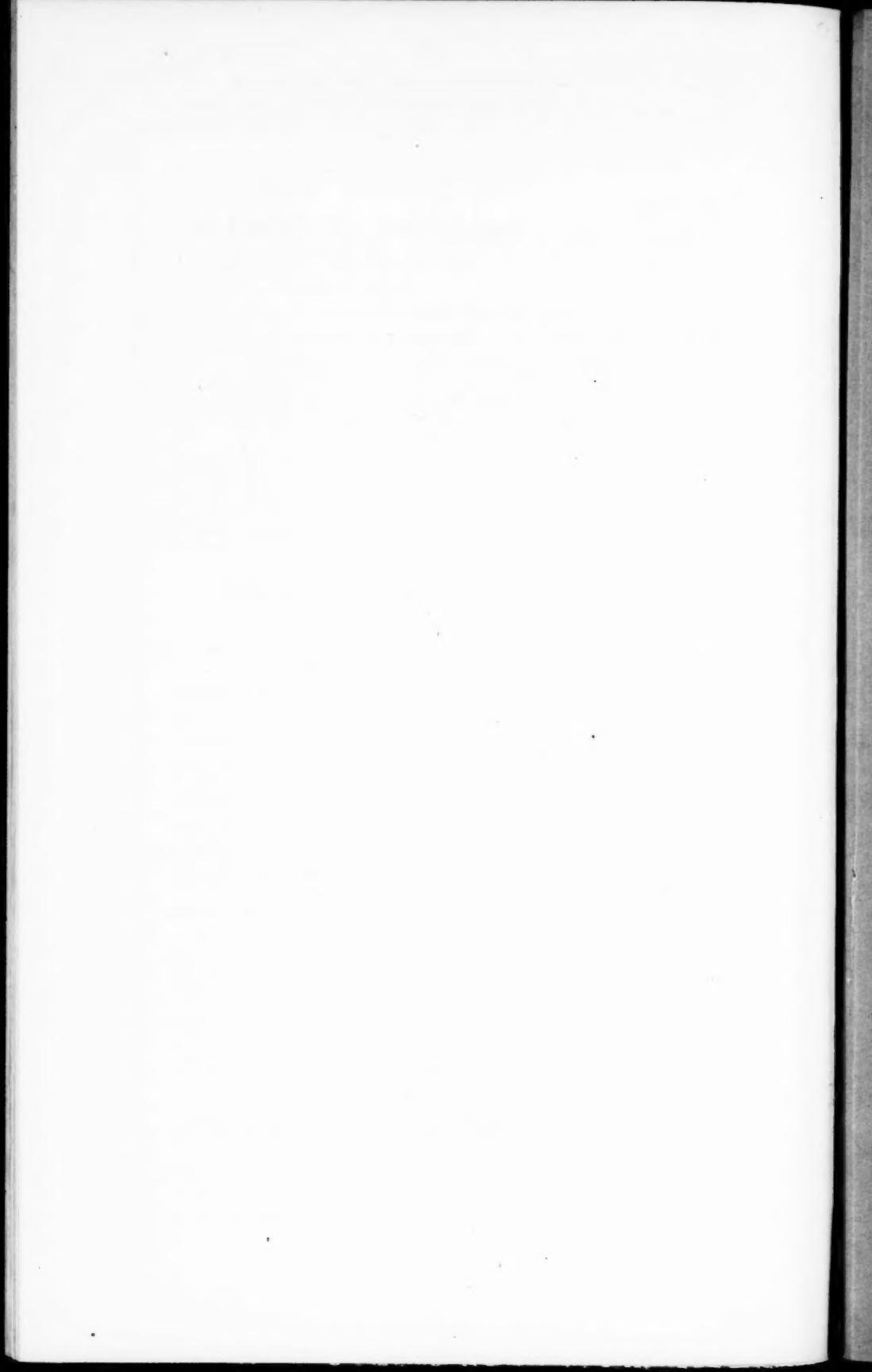
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See preliminary announcement of the program,  
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